The State of New Hampshire
Department of Environmental Services
Thomas S. Burack, Commissioner

Celebrating 25 Years of Protecting
New Hampshire's Environment

January 14, 2013

Curt Spalding, Regional Administrator
EPA New England, Region 1
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Re: New Hampshire Surface Water Quality Regulations

Dear Mr. Spaulding:

The Department of Environmental Services (DES) has adopted amendments to the New Hampshire Surface Water Quality Regulations. The first round of amendments took place on May 20, 2008 and focused on sections Env-Wq 1703.11, 1703.22, 1703.23-1703.25, and 1704.02 but also included editorial changes to other sections. The second round of amendments took place on August 22, 2011 and affected sections Env-Wq 1708.10 and 1708.12. These amendments were adopted in accordance with New Hampshire law.

In order to satisfy the submittal requirements of 40 CFR §131.6 and §131.20(c), the following documents are attached:

- Exhibit 1. Certification by the State Attorney General that the surface water quality regulations were duly adopted pursuant to state law;
- Exhibit 2. Copy of the public notice for the public hearing related to the revision;
    - A. New Hampshire Rulemaking Register (dated February 15, 2008) announcement of public hearing on March 14, 2008. See page 3.
    - B. New Hampshire Rulemaking Register (dated February 18, 2011) announcement of public hearing on April 14, 2011. See page 23.
- Technical/scientific basis for revision;
    - The adopted amendments to surface water quality regulations followed guidance from the U.S. Environmental Protection Agency (EPA). In particular, the Freshwater Aquatic Life Criteria for Ammonia (Env-Wq 1703.25) followed the 1999 update to the EPA 304(a) criteria guidance for ammonia[1]. The EPA guidance document(s) serve as the technical/scientific basis for the revisions. The remainder of the changes to the regulations are administrative and do not require technical/scientific justification.

- Exhibit 3. Marked-up version of the final revised regulations showing new and deleted language since EPA last approved the New Hampshire Surface Water Quality Regulations in 1999;
- Exhibit 4. Clean copy of the final revised regulations;
- Exhibit 5. Public comments; and
    - A. Public comments on the amendments adopted in 2008.
    - B. Public comments on the amendments adopted in 2011.
- Exhibit 6. State's responses to public comments.
    - A. State responses to public comments on the amendments adopted in 2008.
    - B. State responses to public comments on the amendments adopted in 2011.

DES requests EPA approval of these amendments to the New Hampshire Surface Water Quality Regulations per 40 CFR §131.5.

Thank you and if you have any questions, please contact me at (603) 271-3308 or Harry.Stewart@des.nh.gov, or Phil Trowbridge at (603) 271-8872 or phillip.trowbridge@des.nh.gov.

Sincerely,

Harry T. Stewart, P.E.
Director, Water Division

Cc: Ted Diers, NH DES
Philip Trowbridge, NH DES
Ellen Weitzler, EPA
Evan Mulholland, NH DOJ

1. *1999 Update of Ambient Water Quality Criteria for Ammonia.* EPA-822-R-99-014. United States Environmental Protection Agency, Office of Water, Washington DC. December 1999.

Exhibit 1

CERTIFICATE OF LEGAL AUTHORITY

TO WHOM IT MAY CONCERN:

This is to certify that the New Hampshire Surface Water Quality regulations, NH Code Admin. Rule Env-Wq 1700, were legally adopted by the New Hampshire Department of Environmental Services pursuant to the New Hampshire Administrative Procedure Act, RSA Chapter 541-A, on May 20, 2008. The regulations were later legally amended on August 22, 2011, also pursuant to the New Hampshire Administrative Procedure Act.

Michael A. Delaney
Attorney General

By: _____
Evan J. Mulholland
Assistant Attorney General

Date: 1/4/13

Exhibit 2A

NEW HAMPSHIRE
RULEMAKING REGISTER

Exhibit 2A

OFFICE OF LEGISLATIVE SERVICES
ROOM 219, STATE HOUSE ANNEX
25 CAPITOL STREET
CONCORD, NEW HAMPSHIRE 03301-6312
Tel. (603) 271-3680
Website: www.gencourt.state.nh.us/rules/index.html

Fax (603) 271-7871

TDD Access:
Relay NH 1-800-735-2964

VOLUME XXVIII, Number 7, February 15, 2008

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JLCAR MEETING DATES AND RELATED FILING DEADLINES FEBRUARY-JUNE, 2008

The JLCAR has voted to hold its regularly scheduled meetings for February through June, 2008 on the third Friday of the month as listed below. The minimum 14-day "deadline" prior to the regular JLCAR meeting is listed for agencies to file final proposals or proposed interim rules for placement on the JLCAR agenda pursuant to RSA 541-A:12, I and RSA 541-A:19, V. The JLCAR has also scheduled continued meetings as listed below on select Fridays to address items postponed from the prior regular meetings.

Regular Meeting Filing Deadline	Regular Meeting Date	Continued Meeting Date
February 1	**February 15**	March 7
March 7	**March 21**	April 4
April 4	**April 18**	May 2
May 2	**May 16**	June 6
June 6	**June 20**	June 27

Exhibit 2A

Notices of Proposed Rules

JLCAR MEETING DATES AND RELATED FILING DEADLINES JULY-DECEMBER, 2008

The JLCAR has voted to hold its regularly scheduled monthly meetings for July through December, 2008 on the third Thursdays listed below. The minimum 14-day "deadline" prior to the regular JLCAR meeting is listed for agencies to file final proposals or proposed interim rules* for placement on the JLCAR agenda pursuant to RSA 541-A:12, I and RSA 541-A:19, V. The JLCAR has also scheduled continued meetings as listed below on select Thursdays to address any items postponed from the prior regular meetings.

***Note:** *Register* publication, and notice filing deadlines, will still occur on Fridays, except as noted. RSA 541-A:19, V requires that an agency's interim rulemaking notice, whether in a newspaper or in the *Register*, must be published at least 7 days prior to the JLCAR meeting. Therefore, the deadline for filing a proposed interim rule with a *Register* notice will be earlier as listed below.

***Filing Deadline for Interim Rules w/ *Register* Notice**	**Regular Meeting Filing Deadline**	**Regular Meeting Date**	**Continued Meeting Date**
June 27	July 3	**July 17**	July 31
August 1	August 7	**August 21**	September 4
August 29	September 4	**September 18**	October 2
September 26	October 2	**October 16**	November 6
October 31	November 6	**November 20**	December 4
November 26 (Wednesday)	December 4	**December 18**	None

Exhibit 2A

Notice Number 2008-19 Rule Number Env-C 212.01

1. Agency Name & Address:

Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

2. RSA Authority: RSA 541-A:16, I(d)
3. Federal Authority:
4. Type of Action:

Adoption	X
Amendment	
Repeal	
Readoption	
Readoption w/ amendment	

5. Short Title: Purpose and Applicability of Declaratory Ruling Rules

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

Env-C 212 sets forth the process by which a person can request a declaratory ruling from the Department. The Department is proposing to add a new section, Env-C 212.01 Purpose and Applicability, to clarify the situations in which a request for declaratory ruling is appropriate. The effect of this clarification should be that people will not spend time preparing and filing a request for declaratory ruling in cases where it is not appropriate.

6. (b) Brief description of the groups affected:

The rule affects any individual or entity who is considering whether to file a request for declaratory ruling with the Department.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Section(s)	State Statute(s) Implemented
Env-C 212.01	RSA 541-A:16, I(d)

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: Pete Demas
Title: Legal Coordinator
Address: Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
Phone #: (603) 271-2464
Fax#: (603) 271-8805
E-mail: peter.demas@des.nh.gov
The rules also can be viewed in PDF at http://www.des.nh.gov/Rulemaking/
TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **4:00 p.m. on Monday, March 24, 2008**

☒Fax ☒E-mail ☐Other format (specify):

Exhibit 2A

NN 2008-19 Continued

9. Public hearing scheduled for:

Date and Time: **Wednesday, March 12, 2008 at 1:30 p.m.**

Place: Room 110, DES Offices, 29 Hazen Drive, Concord, NH

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 08:011 , dated 02/06/08

1. Comparison of the costs of the proposed rule(s) to the existing rule(s):
Not applicable, these are new rules.

2. Cite the Federal mandate. Identify the impact on state funds:
No federal mandate, no impact on state funds.

3. Cost and benefits of the proposed rule(s):
There are no costs or benefits attributable to the proposed rules.

A. To State general or State special funds:
None.

B. To State citizens and political subdivisions:
None.

C. To independently owned businesses:
None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The proposed rule is procedural only and so has no cost associated with it, and does not create, modify, or expand any program in a way that requires expenditures by political subdivisions. The rule thus does not violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2A

Notice Number 2008-20 Rule Number Env-Wq 1700 (currently Env-Ws 1700)

1. Agency Name & Address:

Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

2. RSA Authority: RSA 485-A:6, I; RSA 485-A:8, VI
3. Federal Authority: Clean Water Act, 33 USC 1251 *et seq*
4. Type of Action:

Adoption	
Amendment	
Repeal	
Readoption	
Readoption w/amendment	X

5. Short Title: Surface Water Quality Standards

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

The existing rules set forth narrative and numeric water quality criteria for support of designated uses in RSA 485-A:8. The rules are being readopted and redesignated as Env-Wq 1700 as part of the Department's larger effort. The proposed revisions are intended to clarify the rules, which should have the effect of making the rules easier to understand and comply with.

6. (b) Brief description of the groups affected:

Any person or entity responsible for activities that cause discharges to surface waters of the state may be affected by the proposed rules.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Section(s)	**State Statute or Federal Statute or Regulation Implemented**
Env-Wq 1701	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1702	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1703	RSA 485-A:6, I; RSA 485-A:8, I, II and III; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1704	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1705	RSA 485-A:6, I; RSA 485-A:6, VII; RSA 485-A:8, VI; RSA 485-A:13, I(a); Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1706	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1707	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1708	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1709	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: Robert Estabrook
Title: Chief Aquatic Biologist
Address: Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
Phone #: 271-3357
Fax#: 271-7894
E-mail: Robert.Estabrook@des.nh.gov

The rules also can be viewed in PDF at http://www.des.nh.gov/Rulemaking/

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

Exhibit 2A

NN 2008-20 Continued

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **Monday, March 24, 2008, 4:00 p.m.**

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time: **Friday , March 14, 2008, 9:00 a.m. to 12:00 noon**

Place: **Auditorium, DES Offices, 29 Hazen Drive, Concord, N.H.**

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 08:009 , dated 01/29/08

1. Comparison of the costs of the proposed rule(s) to the existing rule(s):

There is no difference in cost when comparing the proposed rules to the existing rules.

2. Cite the Federal mandate. Identify the impact on state funds:

The Clean Water Act, 33 U.S.C. 1313, requires states to adopt water quality standards that meet the requirements of the Act. If the Department does not adopt surface water quality standards, the state risks losing approximately $1.26 million annually in federal funds.

3. Cost and benefits of the proposed rule(s):

Any costs or benefits associated with the proposed rules are attributable to RSA 485-A, and the federal mandate stated in 2 above.

A. To State general or State special funds:

None.

B. To State citizens and political subdivisions:

None.

C. To independently owned businesses:

None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The rules do not create, modify, or expand any program in such a way as to require action by political subdivisions and so do not require any expenditures by political subdivisions. The rules thus do not violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2A

Notice Number 2008-21 Rule Number Env-C 300

1. Agency Name & Address:

Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

2. RSA Authority: RSA 485:44; RSA 485:46; RSA 485:47
3. Federal Authority: N/A
4. Type of Action:
   - Adoption
   - Amendment
   - Repeal
   - Readoption
   - Readoption w/amendment X

5. Short Title: Laboratory Accreditation

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

Env-C 300 (currently interim rules) sets forth the procedures and standards by which laboratories that test potable and non-potable water for compliance purposes can request accreditation from the New Hampshire Environmental Laboratory Accreditation Program (NH ELAP), as required by RSA 485:44. Also required by that statute, the NH ELAP must conform to, and otherwise be consistent with, the national accreditation standards approved by the National Environmental Laboratory Accreditation Conference (NELAC). The national standards have been updated and so revisions to the rules are being proposed to reflect the updates. The proposed revisions also are intended to reorganize the rules for clarity and incorporate and clarify procedures that previously were not explicit.

6. (b) Brief description of the groups affected:

The rules will affect laboratories that would like to be accredited to NELAC standards by the NH ELAP.

(c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Section(s)	State or Federal Statute(s) Implemented
Env-C 301 - Env-C 302.18	RSA 485:44, II, RSA 485:47, I
Env-C 303.01 - Env-C 303.17	RSA 485:44, I, RSA 485:44, VII, RSA 485:46, RSA 485:47
Env-C 304.01 - Env-C 304.04	RSA 485:44 II, RSA 485:44 VII, RSA 485:44, X
Env-C 305.01 - Env-C 308.12	RSA 485:44 II, RSA 485:44 III, RSA 485:47
Env-C 309.01 - Env-C 309.02	RSA 485:44, II, RSA 485:44, III, RSA 485:47, I
Env-C 310.01 - Env-C 310.05	RSA 4845: 4, II, RSA 485:47, I
Env-C 311.01 - Env-C 311.07	RSA 485:44, II, RSA 485:47, I
Env-C 31201 - Env-C 312.06	RSA 485:44, IX, RSA 485: 541-A:16, I 47, II; RSA

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: Debra Sonderegger
Title: Program Planner I
Address: Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
Phone #: (603) 271-2862
Fax#: (603) 271-0656
E-mail: debra.sonderegger@des.nh.gov

The rules also can be viewed in PDF at http://www.des.nh.gov/Rulemaking/

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

Exhibit 2A

NN 2008-21 Continued

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **Friday, March 21, 2008, 4:00 p.m.**

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time: **Friday, March 7, 2008, at 10 a.m.**

Place: **Room 110, DES Offices, 29 Hazen Drive, Concord, NH**

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 08:012 , dated 02/08/08

1. Comparison of the costs of the proposed rule(s) to the existing rule(s):

When the proposed rules are compared to the existing interim rules the proposed rules include increased application fees for certain fields of accreditation to cover increased operational costs of the NH Environmental Laboratory Accreditation Program. The Department states that RSA 485:46, II requires the program to recover its costs; therefore the increased fees are attributable to the statute.

2. Cite the Federal mandate. Identify the impact on state funds:

The state is required to establish and maintain a program for the certification of laboratories to meet primacy requirements per 40 CFR 142.10. This mandate does not impact state funds as the program is designed to be continuously funded through its fee structure.

3. Cost and benefits of the proposed rule(s):

The proposed rules include increased application fees for certain fields of accreditation. The Department states that RSA 485:46, II requires the program to recover its costs, therefore the increased fees are attributable to the statute.

A. To State general or State special funds:

The Department is unable to estimate the increased restricted revenue attributable to the revised fee schedule. However, pursuant to RSA 485:46 if there is a balance in excess of $1,000 remaining in the restricted account at the end of the fiscal year the balance in excess shall lapse to the general fund.

B. To State citizens and political subdivisions:

None.

C. To independently owned businesses:

To the extent an independently owned business applies for laboratory accreditation, the independently owned business will incur increased costs. The increased cost will vary based on the fields of accreditation the laboratory is seeking.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

No political subdivisions are required to have a NELAC-accredited laboratory, and all costs are attributable to the statutory requirements for New Hampshire's program to (1) be consistent with the NELAC standards and (2) cover its costs. These rules thus do not create, modify, or expand any program in a way that requires expenditures by political subdivisions and so do not violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2A

Notice Number 2008-22 Rule Number **Ret 303.01**

1. Agency Name & Address:

New Hampshire Retirement System

Board of Trustees

54 Regional Drive

Concord, NH 03301

2. RSA Authority: **100-A:14, II**
3. Federal Authority: **NA**
4. Type of Action:
   - Adoption ____
   - Amendment ____
   - Repeal ____
   - Readoption ____
   - Readoption w/amendment **X**

5. Short Title: **CONTRIBUTION REMITTANCE REPORTS**

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

This amendment clarifies the requirement for monthly remittance of employer contributions and the availability of interest sanctions on employers who are late in remitting contributions. This procedure is now consistent with a similar process for Contribution Adjustments in Ret 304.06 and 304.07.

6. (b) Brief description of the groups affected: **NHRS participating employers**

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

RULE	STATUTE
Ret 303.01	RSA 100-A:16

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: **Peter T. Foley**
Address: **P.O. Box 2753**
Concord, NH 03302

Title: **Legal Counsel**
Phone #: **(603) 224-6368**
Fax#: **(603) 227-0777**
E-mail: **foleypt@comcast.net**
TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **3/11/08**

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time: **March 11, 2008 at 10 a.m.**

Place: **NHRS, 54 Regional Drive, Concord, NH**

NN 2008-22 Continued

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # **07:221** , dated **12/6/07**

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
   There is no difference in cost when comparing the proposed rules to the existing rules.

2. **Cite the Federal mandate. Identify the impact on state funds:**
   No federal mandate; no impact on state funds.

3. **Cost and benefits of the proposed rule(s):**
   There are no costs or benefits attributable to the proposed rules.

   A. **To State general or State special funds:**
      None.

   B. **To State citizens and political subdivisions:**
      None.

   C. **To independently owned businesses:**
      None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution: **The proposed rule does not violate Part I, Article 28-a of the N.H. Constitution because it merely makes the process for monthly remittance of employer contributions and the process for abatement of late submission penalties consistent with the Contribution Adjustment process in Ret 304.06 and 304.07 In effect since 2001) and imposes no financial mandate.**

Exhibit 2A

Notice Number 2008-23 Rule Number **Ret 310**

1. Agency Name & Address:	2. RSA Authority: **100-A:14, II**
	3. Federal Authority: **NA**
New Hampshire Retirement System	4. Type of Action:
Board of Trustees	Adoption ____
	Amendment ____
54 Regional Drive	Repeal ____
	Readoption ____
Concord, NH 03301	Readoption w/amendment **X**

5. Short Title:

CALCULATION OF COMPENSATION FOR DETERMINATION OF BENEFITS

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

This amendment revises the process for calculation of average final compensation (AFC) and the 150% earnable compensation cap in two, extremely rare situations: (1) members who retire with less than three years of membership but with additional years of prior service and (2) members who retire with less than three years of creditable service. The amended rule, by using historical salary data and a redesigned AFC calculation formula applicable to only these specific situations, would result, in such situations, in a more equitable calculation of AFC and would eliminate the possibility of excessive AFC from the current calculation process.

6. (b) Brief description of the groups affected:

This amendment will affect NHRS retirement eligible members in two extremely limited categories:

(1) those who retire with less than three years of membership but with additional years of prior service and (2) those who retire with less than three years of creditable serviced.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

RULE	STATUTES
Ret 310	RSA 100-A:5 (Service Retirement Benefits)
	RSA 100-A:6 (Disability Retirement Benefits)
	RSA 100-A:10 (Vested Deferred Retirement Benefits)

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: **Peter T. Foley**
Address: **PO Box 2753**
Concord, NH 03302

Title: **NHRS Legal Counsel**
Phone #: **(603) 224-6368**
Fax#: **(603) 227-0777**
E-mail: **foleypt@comcast.net**
TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

Exhibit 2A

NN 2008-23 Continued

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **March 11, 2008**

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time: **March 11, 2008 at 10 a.m.**

Place: **NHRS, 54 Regional Drive, Concord, NH**

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # **07:222** , dated **12/6/07**

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
The proposed rules, when compared to the existing rules may have an indeterminable impact on state citizens to the extent they are members of the New Hampshire Retirement System and meet certain conditions.

2. **Cite the Federal mandate. Identify the impact on state funds:**
No federal mandate; no impact on state funds.

3. **Cost and benefits of the proposed rule(s):**

A. **To State general or State special funds:**
None.

B. **To State citizens and political subdivisions:**
To the extent a citizen is a member of the New Hampshire Retirement System and retires with less than three years of membership but with additional years of prior service or retires with less than three years of creditable service there may be a financial impact on the calculation of retirement benefits. The System states these situations are rare. However, the proposed rules would allow for equitable calculations of the average final compensation and eliminate the possibility of excessive average final compensation when these situations are present. There is no impact on political subdivisions.

C. **To independently owned businesses:**
None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution: **The proposed rule does not violate Part I, Article 28-a of the N.H. Constitution because it merely revises the method used by the NHRS to calculate member retirement benefits in certain rare situations and has no effect on local governments.**

Exhibit 2B

Exhibit 2B

NEW HAMPSHIRE
RULEMAKING REGISTER

OFFICE OF LEGISLATIVE SERVICES
ROOM 219, STATE HOUSE ANNEX
25 CAPITOL STREET
CONCORD, NEW HAMPSHIRE 03301-6312
Tel. (603) 271-3680
Website: www.gencourt.state.nh.us/rules/index.html

Fax (603) 271-7871

TDD Access:
Relay NH 1-800-735-2964

VOLUME XXXI, Number 7, February 18, 2011

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JLCAR MEETING DATES AND RELATED FILING DEADLINES FEBRUARY-JULY, 2011

The JLCAR has voted to hold its regularly scheduled meetings for February through June, 2011 on the third Friday of the month as listed below. The minimum 14-day "deadline" prior to the regular JLCAR meeting, extended for holidays, is listed for agencies to file final proposals or proposed interim rules for placement on the JLCAR agenda pursuant to RSA 541-A:12, I and RSA 541-A:19, V. The JLCAR has also scheduled continued meetings as listed below on select Fridays, except for July 7 as noted, to address items postponed from the prior regular meetings.

Regular Meeting Filing Deadline	Regular Meeting Date	Continued Meeting Date
February 4	**February 18**	March 4
March 4	**March 18**	April 1
April 1	**April 15**	May 6
May 6	**May 20**	June 3
June 3	**June 17**	July 7 (Thursday)

Exhibit 2B

Notices of Proposed Rules

Exhibit 2B

JLCAR MEETING DATES AND RELATED FILING DEADLINES JULY-DECEMBER, 2011

The JLCAR has voted to hold its regularly scheduled monthly meetings for July through December, 2011 on the third Thursdays listed below. The minimum 14-day "deadline" prior to the regular JLCAR meeting is listed for agencies to file final proposals or proposed interim rules* for placement on the JLCAR agenda pursuant to RSA 541-A:12, I and RSA 541-A:19, V. The JLCAR has also scheduled continued meetings as listed below on select Thursdays to address any items postponed from the prior regular meetings.

***Note:** *Register* publication, and notice filing deadlines, will still occur on Fridays, except as noted. RSA 541-A:19, V requires that an agency's interim rulemaking notice, whether in a newspaper or in the *Register*, must be published at least 7 days prior to the JLCAR meeting. Therefore, the deadline for filing a proposed interim rule with a *Register* notice will be earlier as listed below.

***Filing Deadline for Interim Rules w/ *Register* Notice**	**Regular Meeting Filing Deadline**	**Regular Meeting Date**	**Continued Meeting Date**
July 1	July 7	**July 21**	August 4
July 29	August 4	**August 18**	September 1
August 26	September 1	**September 15**	October 6
September 30	October 6	**October 20**	November 3
October 28	November 3	**November 17**	December 1
November 23 (Wednesday)	December 1	**December 15**	None

Exhibit 2B

Notice Number 2011-14 Rule Number Frl 200

1. Agency Name & Address:

Board of Registration of Funeral Directors and Embalmers
29 Hazen Drive
Concord, NH 03301

2. RSA Authority: **RSA 325:9, VIII, RSA 541-A:16, I (b)(2) & (3), (c), & (d)**

3. Federal Authority:

4. Type of Action:

Adoption ____
Amendment ____
Repeal ____
Readoption ____
Readoption w/amendment X

5. Short Title: **Practice and Procedure**

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

These rules define the practice and procedure for acquiring sufficient information to make fair and reasonable decisions on matters within its jurisdiction. The amendments bring the rules in line with the Department of Justice model rules of Practice and Procedure. The amendments have the same effect on those regulated as the current rules.

6. (b) Brief description of the groups affected:

The groups affected by this rule are those individuals licensed in the State of New Hampshire as an apprentice embalmer, embalmer and funeral director.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Section(s)	Statute(s) Implemented
Frl 200 (Specific provisions implementing specific statutes are listed below)	RSA 325:9, VI; RSA 325:9, VIII; RSA 541-A:16, I (b)
Frl 201.01	RSA 325:34, VII
Frl 202.03	RSA 541-A:30-a, III (j)
Frl 203	RSA 541-A:30-a, III (b)
Frl 204	RSA 541-A:30-a, III (f)
Frl 205	RSA 541-A:30-a, III (a)
Frl 206.01	RSA 325:32, I
Frl 206.02	RSA 325:32, I
Frl 206.02 (n)	RSA 541-A:30-a, III (g)
Frl 207	RSA 541-A:30-a
Frl 207.02	RSA 325:34, III
Frl 207.08	RSA 325:33-a

Exhibit 2B

NN 2011-14 Continued

Item 6 (c) cont.)

Frl 208	RSA 541-A:30-a
Frl 208.02	RSA 325:34, II
Frl 209	RSA 541-A:30-a
Frl 209.03 (b)	RSA 325:34, VII
Frl 210	RSA 541-A:30-a
Frl 211	RSA 325:33
Frl 212	RSA 541-A:16, I (c)
Frl 213	RSA 541-A:16, I (b)
Frl 214	RSA 541-A:16, I (d)

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: **Susan M. Russell**

Address: **Board of Registration of Funeral Directors and Embalmers**
29 Hazen Drive
Concord, NH 03301

Title: **Executive Director**

Phone #: **(603) 271-4648**

Fax#: **(603) 271-5056**

E-mail: **funeralbd@dhhs.state.nh.us**

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: Tuesday, March 15, 2011 at 5:30 PM or conclusion of hearing, whichever is later.

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time: **Tuesday, March 15, 2011 at 4:30 PM**

Place: **Room 110, 29 Hazen Drive, Concord, NH 03301**

Exhibit 2B

NN 2011-14 Continued

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # **11:008** , dated **February 3, 2011**

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
   There is no difference in cost when comparing the proposed rules to the existing rules.

2. **Cite the Federal mandate. Identify the impact on state funds:**
   No federal mandate, no impact on state funds.

3. **Cost and benefits of the proposed rule(s):**
   There are no additional costs or benefits attributable to the proposed rules.

   A. **To State general or State special funds:**
      None.

   B. **To State citizens and political subdivisions:**
      None.

   C. **To independently owned businesses:**
      None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution: **The proposed rule does not violate Part I, Article 28-a of the New Hampshire Constitution because it does not mandate or assign any program or responsibilities to any political subdivision.**

Exhibit 2B

Notice Number 2011-15 Rule Number Rev 500

1. Agency Name & Address:

New Hampshire Department of Revenue Administration
109 Pleasant Street, PO Box 457
Concord, NH 03302-0457

2. RSA Authority: **RSA 72-B:18**
3. Federal Authority:
4. Type of Action:
   - Adoption
   - Amendment
   - Repeal
   - Readoption
   - Readoption w/amendment **X**

5. Short Title: **Excavation Tax**

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

The Excavation Tax Rules are being amended to improve administration and enforcement of the Excavation Tax under RSA 72-B. The proposed rules add definitions to clarify the existing rules, update directives to assist municipal assessing officials in enforcement of the Excavation Tax, and update the certification and distribution of the forms used to submit information to the Department of Revenue Administration.

6. (b) Brief description of the groups affected:

Property owners intending to excavate earth and municipal assessing officials.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

RULE	STATUE
Rev 501.01	RSA 72-B:2
Rev 501.02	RSA 155-E:1, I
Rev 501.03	RSA 155-E:1, II
Rev 501.04	RSA 72-B:18
Rev 501.05	RSA 72-B:2, VI
Rev 501.06	RSA 72-B:18
Rev 501.07	RSA 155-E:5 &11
Rev 501.08	RSA 72-B:2, II
Rev 501.09	RSA 72-B:218
Rev 501.10	RSA 72-B:18
Rev 501.11	RSA 72-B:2, VIII
Rev 501.12	RSA 72-B:2, IX
Rev 501.13	RSA 72-B:18
Rev 501.14	RSA 72-B:18
Rev 502.01	RSA 72-B:8 and 8-a, RSA 72-B:16

Exhibit 2B

NN 2011-15 Continued

Item 6 (c) cont.)

Rev 502.02	RSA 72-B:9
Rev 503.01	RSA 72-B:8, RSA 72-B:18
Rev 504.01	RSA 72-B:8
Rev 504.02	RSA 72-B:9
Rev 504.03	RSA 72-B:8
Rev 505.01	RSA 72-B:1, II
Rev 505.02	RSA 72-B:1
Rev 505.03	RSA 72-B:1
Rev 506.01	RSA 72-B:1, I
Rev 506.02	RSA 72-B:2, VII
Rev 506.03	RSA 72-B:18
Rev 506.04	RSA 72-B:18
Rev 506.05	RSA 72-B:18
Rev 506.06	RSA 72-B:18
Rev 507.01	RSA 72-B:5
Rev 508.01	RSA 72-B:13

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: **Katherine M. de Oliveira**
Address: **109 Pleasant Street,**
PO Box 457
Concord, NH 03302-0457

Title: **Administrative Secretary**
Phone #: **603.271.8264**
Fax#: **603.271.6121**
E-mail: **Katherine.deOliveira@rev.state.nh.us**
TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified:
Monday, March 21, 2011

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time: **Friday, March 11, 2011 at 10:00AM**

Place: **New Hampshire Department of Revenue Administration**
Medical and Surgical Building
109 Pleasant Street
Concord, NH 03302

Exhibit 2B

NN 2011-15 Continued

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # **11:010** , dated **2/3/2011**

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
   There is no difference in cost when comparing the existing rules to the proposed rules.
2. **Cite the Federal mandate. Identify the impact on state funds:**
   No federal mandate, no impact on state funds.

3. **Cost and benefits of the proposed rule(s):**
   There are no additional costs or benefits attributable to the proposed rules.

   A. To State general or State special funds:
      None.

   B. To State citizens and political subdivisions:
      None.

   C. To independently owned businesses:
      None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The proposed rules do not mandate any fees, duties or expenditures on a political subdivision of the state which could violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2B

Notice Number 2011-16 Rule Number Rev 2300

1. Agency Name & Address:

New Hampshire Department of Revenue Administration
109 Pleasant Street, PO Box 457
Concord, NH 03302-0457

2. RSA Authority: **RSA 21-J:13, I; 84-A:9, I**
3. Federal Authority:
4. Type of Action:
   - Adoption X
   - Amendment
   - Repeal
   - Readoption X
   - Readoption w/amendment X

5. Short Title: **Medicaid Enhancement Tax (MET)**

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

The Medicaid Enhancement Tax rules provide guidance to hospitals that are subject to the Medicaid Enhancement Tax under RSA 84-A. The proposed rules make technical corrections to the existing rules and also provide further guidance to hospitals as to the calculation of net patient services revenue under RSA 84-A.

6. (b) Brief description of the groups affected:

General hospitals and special hospitals for rehabilitation required to be licensed under RSA 151 and receiving Medicaid diagnosis related group (DRG) payments, but not including government facilities. See RSA 84-A:1, III.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

RULE	STATUTE IMPLEMENTED
Rev 2301.01	RSA 84-A:1, IV-a; Rev 84-A:3
Rev 2301.02	RSA 84-A:1, IV-a; Rev 84-A:3
Rev 2301.03	RSA 84-A:9, I
Rev 2301.04	RSA 84-A:1, IV-a; Rev 84-A:3
Rev 2301.05	RSA 84-A:1, IV-a; Rev 84-A:3
Rev 2301.06	RSA 84-A:1, IV-a; Rev 84-A:3
Rev 2301.07	RSA 84-A:1, IV-a; Rev 84-A:3
Rev 2301.08	RSA 84-A:1, IV-a; Rev 84-A:3
Rev 2301.09	RSA 84-A:1, III
Rev 2302.01	RSA 84-A:9, I
Rev 2303.01	RSA 84-A:4
Rev 2304.01	RSA 84-A:9, I
Rev 2304.02	RSA 84-A:9, I

Exhibit 2B

NN 2011-16 Continued

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: **Katherine M. de Oliveira**
Address: **109 Pleasant Street, PO Box 457**
Concord, NH 03302-0457

Title: **Administrative Secretary**
Phone #: **603.271.8264**
Fax#: **603.271.6121**
E-mail: **Katherine.deOliveira@rev.state.nh.us**
TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified:

Monday, March 21, 2011

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time: **Friday, March 11, 2011 @ 12 PM**

Place: **New Hampshire Department of Revenue Administration**
Medical and Surgical Building
109 Pleasant Street
Concord, NH 03302

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # **11:013** , dated **2/4/2011**

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
There is no difference in cost when comparing the existing rules to the proposed rules.

2. **Cite the Federal mandate. Identify the impact on state funds:**
No federal mandate, no impact on state funds.

3. **Cost and benefits of the proposed rule(s):**
There are no additional costs or benefits attributable to the proposed rules.

A. To State general or State special funds:
None.

B. To State citizens and political subdivisions:
None.

C. To independently owned businesses:
None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The proposed rules do not mandate any fees, duties or expenditures on a political subdivision of the state which could violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2B

Notice Number 2011-17 Rule Number He-C 900

1. Agency Name & Address:

NH Dept. of Health & Human Services
Office of the Commissioner
129 Pleasant Street
Concord, NH 03301

2. RSA Authority: RSA 126-U:7, III; RSA 126-U:9

3. Federal Authority: N/A

4. Type of Action:

Adoption	X
Amendment	
Repeal	
Readoption	
Readoption w/amendment	

5. Short Title: CHILD RESTRAINT PRACTICES

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

He-C 900 is a new rule that implements SB 396 (2010 session) regarding child restraint practices in various facilities. The rule establishes reporting requirements for facilities, describes the department's procedure for reviewing restraint usage in facilities, and establishes the complaint and investigation procedures for the improper use of restraints.

6. (b) Brief description of the groups affected:

Those affected by this rule include those facilities as defined in RSA 126-U:1, III, the department of health and human services, and the department's office of the ombudsman.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Section	RSA Authority
He-C 901.01	RSA 126-U:1
He-C 901.02	RSA 126-U:9
He-C 901.03	RSA 126-U:7, III & 9
He-C 901.04	RSA 126-U:9

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name:	Michael Holt	Title:	Rules Coordinator
Address:	DHHS, Administrative Rules Unit 129 Pleasant Street Concord, NH 03301	Phone #: Fax#: E-mail:	271-4966 271-5590 michael.holt@dhhs.state.nh.us

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)
The proposed rules may be viewed and downloaded at:
http://www.dhhs.nh.gov/DHHS/ADMINRULEMAKING/default.htm

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **Monday, March 21, 2011**

☒Fax ☒E-mail ☐Other format (specify):

Exhibit 2B

NN 2011-17 Continued

9. Public hearing scheduled for:

Date and Time: Friday, March 11, 2011 at 9:00 AM

Place: 129 Pleasant St., Brown Building, Room 232, Concord, NH 03301

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 11:011, dated 2/04/11

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
   Not applicable, these are new rules.
2. **Cite the Federal mandate. Identify the impact of state funds:**
   No federal mandate, no impact on state funds.
3. **Cost and benefits of the proposed rule(s):**
   There are no additional costs or benefits attributable to the proposed rules.
   A. **To State general or State special funds:**
      None.
   B. **To State citizens and political subdivisions:**
      None.
   C. **To Independently owned businesses:**
      None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The proposed rule creates a new program or responsibility but does not mandate any fees, duties or expenditures on the political subdivisions of the state, and therefore does not violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2B

Notice Number 2011-18 Rule Number He-C 5001 & He-C 5002

1. Agency Name & Address:

NH Dept. of Health & Human Services
Office of Medicaid Business and Policy
129 Pleasant Street
Concord, NH 03301

2. RSA Authority: **RSA 161:4-a, IX; RSA 167:65, IV**

3. Federal Authority: **42 USC 1396r-4**

4. Type of Action:

Adoption	
Amendment	
Repeal	
Readoption	X
Readoption w/amendment	

5. Short Title: **Payments to Non-Public Disproportionate Share Hospitals & Uncompensated Care Fund Reporting**

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

The proposed rules readopt the currently effectively interim rules, with no changes. These rules explain the allocation amount allowed, types of hospitals eligible, and the methodology to receive non-public disproportionate share hospital (DSH) payments. They also establish the mechanism for reporting Medicaid uncompensated care data to the department.

6. (b) Brief description of the groups affected:

Those affected by these rules include hospitals who provide uncompensated care to Medicaid and uninsured patients, as well as those patients seeking hospital care.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Section	RSA Authority
He-C 5001	RSA 167:63-65
He-C 5002	RSA 167:63-65

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name:	**Michael Holt**	Title:	**Rules Coordinator**
Address:	**DHHS, Administrative Rules Unit** **129 Pleasant Street** **Concord, NH 03301**	Phone #: Fax#: E-mail:	**271-4966** **271-5590** **michael.holt@dhhs.state.nh.us**

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)
The proposed rules may be viewed and downloaded at:
http://www.dhhs.nh.gov/DHHS/ADMINRULEMAKING/default.htm

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **Monday, March 21, 2011**

☒Fax ☒E-mail ☐Other format (specify):

Exhibit 2B

NN 2011-18 Continued

9. Public hearing scheduled for:

Date and Time: **Friday, March 11, 2011 at 10:00 AM**

Place: **129 Pleasant St., Brown Building, Room 232, Concord, NH 03301**

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 11:012, dated 2/04/11

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
   There is no difference in cost when comparing the proposed rule to the existing rule.
2. **Cite the Federal mandate. Identify the impact of state funds:**
   42 USC 1396r-4 describes the requirements for disproportionate share payment program. There is no impact on state funds.
3. **Cost and benefits of the proposed rule(s):**
   There are no additional costs or benefits attributable to the proposed rules.
   A. **To State general or State special funds:**
      None.
   B. **To State citizens and political subdivisions:**
      None.
   C. **To Independently owned businesses:**
      None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The proposed rule does not modify an existing program or responsibility, and does not mandate any fees, duties or expenditures on the political subdivisions of the state and, therefore, does not violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2B

Notice Number 2011-19 Rule Number Various Saf-C 9300

1. Agency Name & Address:

NH Department of Safety
33 Hazen Drive
Concord, NH 03305

2. RSA Authority: RSA 319-C:6-a
3. Federal Authority N/A
4. Type of Action:
Adoption ___
Amendment X
Repeal ___
Readoption ___
Readoption w/amendment ___

5. Short Title: Various Bureau of Electrical Safety and Licensing Rules

6.(a) Summary of what the rule says and the effect of the rule on those regulated:

Saf-C 9300, Bureau of Electrical Safety and Licensing Rules were recently readopted in their entirety. These proposed rules make several minor changes described as follows: (1) Saf-C 9301.04(i) clarifies that high school students registered in a youth apprenticeship program pursuant to Saf-C 9303.02(c) shall not be required to pay the $50.00 application fee; (2) Saf-C 9303.02(c)(3) and (10) change the amount of credit given apprentices from 144 to 150 hours; (3) Saf-C 9304.01(a) and Saf-C 9308.01(a)(1) change the edition for the National Electrical Code to the year 2011; (4) Saf-C 9308.02(a) clarifies the renewal requirements for apprentices and (5) Saf-C 9310.02(b) clarifies monthly reporting requirements for those whose certification as an electrician has become limited.

6.(b) Brief description of the groups affected:

These rules affect individuals who are or want to become electrician apprentices and high school students registered in a youth apprenticeship program; individuals who are or want to be licensed as a master, journeyman or high/medium voltage electrician; the Board of Electricians and the Bureau of Electrical Safety and Licensing, Office of the State Fire Marshal of the Division of Fire Safety, Department of Safety.

6.(c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

RULE	STATUTE IMPLEMENTED
Saf-C 9301.04(i)	RSA 319-C:6-a, I, V; RSA 319-C:6-b
Saf-C 9303.02(c)(3) & (10)	RSA 319-C:6-a, II; RSA 319-C:7, IV
Saf-C 9304.01(a)	RSA 319-C:6-a, III, V-a; RSA 319-C:8
Saf-C 9308.01(a)(1)	RSA 319-C:6-a, IV
Saf-C 9308.02(a)	RSA 319-C:6-a, IV; RSA 319-C:9
Saf-C 9310.02(b)	RSA 319-C:6-a, VI, VII; RSA 319-C:12

Exhibit 2B

NN 2011-19 Continued

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name:	Sheri J. Kelloway	Title:	Legal Counsel
Address:	Division of Motor Vehicles 23 Hazen Drive Concord, NH 03305	Phone#: FAX #: E-mail: TTY/TDD Access:	(603)271-6519 (603)271-7800 Sheri.Kelloway@dos.nh.gov Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of written materials in writing or, if practicable for the agency, in the electronic format specified: Thursday, March 24, 2011

__x__FAX ___x__ E-mail _____ Other format (specify): _____

9. Public hearing scheduled for:

Date and time: Monday, March 14, 2011, at 11:00AM

Place: Richard M. Flynn Fire Academy
98 Smokey Bear Boulevard
Classroom Five (Dormitory Building)
Concord, NH 03305

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 11:005 _____, dated January 27, 2011

1. Comparison of the costs of the proposed rule(s) to the existing rule(s):

When compared to the existing rules, the proposed rules may decrease state general fund revenue by $4,000 in FY 2012 and each year thereafter, and decrease costs to State citizens to the extent they are high school students applying for an electrician apprentice license and would not be required to pay the $50 application fee.

2. Cite the Federal mandate. Identify the impact on state funds:

No federal mandate, no impact on state funds.

3. Cost and benefits of the proposed rule(s):

A. To State general or State special funds:

The proposed rules eliminate the $50 application fee for high school students applying for an electrician apprentice license. On average, 80 apprentice license applicants per year are high school students and would no longer pay the application fee, for a decrease in revenue of $4,000 per fiscal year. Per RSA 21-P:12-d, these fees shall be deposited in the fire standards and training and emergency medical services fund, established in RSA 21-P:12-d, and used for the purposes of operating expenses of the electricians' board, with any excess deposited in the general fund as unrestricted revenue. The Department assumes the electricians' board expenses would continue to be funded, so the $4,000 decrease in revenue would be a decrease in general fund unrestricted revenue.

Exhibit 2B

NN 2011-19 Continued

B. To State citizens and political subdivisions:

To the extent State citizens are high school students applying for the electrician apprentice license who would no longer be required to pay the fee referred to above in A, their costs would decrease.

C. To independently owned businesses:

None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The proposed rulemaking does not create a new program or responsibility. The proposed rulemaking does not modify a program or responsibility in such a way as to mandate or assign this program or responsibility to any political subdivision so as to increase the costs a political subdivision must pay.

Exhibit 2B

Notice Number 2011-20 Rule Number Ins 4100

1. Agency Name & Address: **N.H. Insurance Department** **21 South Fruit Street, Suite 14** **Concord, NH 03301**	2. RSA Authority: **RSA 400-A:15, I.; 404-G:6, IV.; 415:16; 415:18, I.; 415:24, II.(h); 415-A:6; 420-A:31; 420-B:21; 420-G:14** 3. Federal Authority: 4. Type of Action: Adoption Amendment Repeal Readoption Readoption w/amendment **X**

5. Short Title: **Ins 4100 Requirements for Accident and Health Insurance Rate Submissions**

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

Adopted in 2010, Ins 4100 established the requirements and standards to be used by carriers for all filings of accident and health insurance rates. This rulemaking proceeding amends the existing rule for greater clarity and compliance with federal mandates. It incorporates the US Department of Health and Human Services regulation, 45 CFR Subtitle A, Subchapter B Part 158 Issuer Use of Premium Revenue Reporting and Rebate; inserts additional definitions, and clarifies other definitions; and it updates submission requirements under the various categories of coverage.

6. (b) Brief description of the groups affected:

This rule affects all carriers writing accident and health insurance in this state.

Exhibit 2B

NN 2011-20 Continued

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

RULE	STATUTE
Ins 4101.01	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4101.02	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4101.03	RSA 400-A:15, I.; 415:1; 415-A:1; 420-A:1; 420-A:2; 420-B:1; 420-A:8;420-B:20; 420-G:2
Ins 4101.04	RSA 400-A:15, I.; 415:1; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4,420-G:11; 420-G:12; 420-G:13
Ins 4101.05	RSA 400-A:15, I.; 415:1; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4101.06	RSA 400-A:15, I.; 415:1; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 410-G:11; 420-G:12; 420-G:13
Ins 4102.01	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4102.02	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4102.03	RSA 400-A:15, I.; 415:1; 415-A:1; 420-A:1; 420-A:2; 420-B:1; 420-A:8; 420-B:20; 420-G:2
Ins 4102.04	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4102.05	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4102.06	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4102.07	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4102.08 (deleted)	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4103.01	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4103.02	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4103.03	RSA 400-A:15, I.; 415:1; 415-A:1; 420-A:1; 420-A:2; 420-B:1; 420-A:8; 420-B:20; 420-G:2
Ins 4103.04	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4103.05	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4103.06	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4103.07	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4103.08	RSA 400-A:15, I.; 415-A:6; 420-G:4(h); 420-G:13; 420-G:14
Ins 4103.09	RSA 400-A:15, I.; 415:18 VII.(a); 420-g:13; 420-G:14

Exhibit 2B

NN 2011-20 Continued

Item 6 (c) cont.)

Ins 4104.01	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4104.02	RSA 400-A:15, I.; 415:1; 415:2; 415:16; 415:24; 415-A:5; 420-A:2; 420-A:8; 420-B:20; 420-G:1; 420-G:4; 420-G:11; 420-G:12; 420-G:13
Ins 4104.03	RSA 400-A:15, I.; 415:1; 415-A:1; 420-A:1; 420-A:2; 420-B:1; 420-A:8; 420-B:20; 420-G:2
Ins 4104.04	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4104.05	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4104.06	RSA 400-A:15, I.; 415:1; 420-A:2 420-A:8; 420-B:20; 420-G:1; 420-G:4, 420-G:11; 420-G:12; 420-G:13
Ins 4104.07	RSA 400-A:15, I.; 415-A:6; 415:1; 415:2;420-G:14
Ins 4104.08	RSA 400-A:15, I.; 415:1; 415:2; 420-G:14
Ins 4105.01	RSA 400-A:15, I.; 415-H:5
Ins 4105.02	RSA 400-A:15, I.; 415-H:5
Ins 4105.03	RSA 400-A:15, I.; 415-H:5
Ins 4105.04	RSA 400-A:15, I.; 415-H:5
Ins 4105.05	RSA 400-A:15, I.; 415-H:5
Ins 4105.06	RSA 400-A:15, I.; 415-H:5
Ins 4105.07	RSA 400-A:15, I.; 415-H:5
Ins 4106.01	RSA 400-A:15, I.; 415-A:6; 415:1; 415:2
Ins 4106.02	RSA 400-A:15, I.; 415-A:6; 415:1; 415:2
Ins 4106.03	RSA 400-A:15, I.; 415-A:6; 415:1; 415:2
Ins 4106.04	RSA 400-A:15, I.; 415-A:6; 415:1; 415:2
Ins 4106.05	RSA 400-A:15, I.; 415-A:6; 415:1; 415:2
Ins 4106.06	RSA 400-A:15, I.; 415-A:6; 415:1; 415:2

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: **Leslie Ludtke**

Address: **N.H. Insurance Department**
21 South Fruit Street, Suite 14
Concord, NH 03301

Title: **Health Policy Analyst**

Phone #: **271-2261**

Fax#: **271-1406**

E-mail: **leslie.ludtke@ins.nh.gov**

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: April 8, 2011

☒Fax ☒E-mail ☐Other format (specify):

Exhibit 2B

NN 2011-20 Continued

9. Public hearing scheduled for:

Date and Time: **March 28, 2011 at 9:30 a.m.**

Place: **NH Insurance Department, 21 So. Fruit St., Concord, NH**

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 11:015 , dated 02/08/11

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
   There is no difference in cost when comparing the proposed rules to the existing rules.

2. **Cite the Federal mandate. Identify the impact on state funds:**
   No federal mandate, no impact on state funds.

3. **Cost and benefits of the proposed rule(s):**
   There are no costs or benefits attributable to the proposed rules.

   A. **To State general or State special funds:**
      None.

   B. **To State citizens and political subdivisions:**
      None.

   C. **To independently owned businesses:**
      None.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution: **This rule does not mandate any new, expanded or modified program or responsibility to any political subdivision in such a way as to necessitate addtional local expenditures by the political subdivision.**

Exhibit 2B

Notice Number 2011-21 Rule Number Pda 500

1. Agency Name & Address:

Pease Development Authority
Division of Ports and Harbors
555 Market Street
Portsmouth, NH 03801

2. RSA Authority: 12-G:42 X(c)
3. Federal Authority:
4. Type of Action:
   Adoption x
   Amendment
   Repeal x
   Readoption x
   Readoption w/ amendment x

5. Short Title: Pda 500 – Moorings and Anchorages

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

Pda 500 sets forth the rules for the Division of Ports and Harbors ("Division") for the: (1) regulation of the mooring of vessels in state tidal waters, including the setting and relocation of moorings; (2) issuance of different types of mooring permits, namely, general use, shorefront property owner, commercial use, commercial for hire, non-revenue, and temporary seasonal mooring permits; (3) wait list procedures for applicants applying for mooring permits when there are no moorings available; (4) mooring equipment requirements; (5) grounds for denial or revocation and reconsideration of certain decisions relating to denial, revocation, and transfer of mooring permits; (6) allowable transfers of mooring permits; (7) removal of vessels and changes in anchorage positions, and (8) procedures for annually setting fees related to the issuance of mooring permits and wait lists.

Pda 500 regulates the setting of moorings in state tidal waters. Any person or entity seeking to set a mooring in state tidal waters must comply with Pda 500 to obtain a mooring permit before a mooring may be set

6. (b) Brief description of the groups affected:

The rules affect individuals and entities who: a) apply for different types of seasonal mooring permits, temporary seasonal mooring permits, and mooring wait lists; and b) use or seek to use a mooring in state tidal waters. State governmental agencies may apply for and be granted non-revenue moorings for which the permit fee is waived.

Exhibit 2B

NN 2011-21 Continued

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Number	State Statute/Federal Regulation Implemented
Pda 501	RSA 12-G:42, III, VI; 12-G:50, I(b), (c), (f)
Pda 502	RSA 12-G:42, III, VI; 12-G:50, I(b), (c), (f)
Pda 503.01	RSA 12-G:42, III, VI; 12-G:50, I(b)
Pda 503.02	RSA 12-G:42, III, VI; 12-G:50, I(b), (f)
Pda 504	RSA 12-G:42, III, VI; 12-G:50, I(b)
Pda 505	RSA 12-G:42, VI
Pda 506	RSA 12-G:42, VI
Pda 507	RSA 12-G:42, VI
Pda 508.01 – 508.03	RSA 12-G:42, VI
Pda 508.04 [repealed]	RSA 12-G:42, VI
Pda 509.01 – 509.08	RSA 12-G:42, VI, VII
Pda 509.09 – 509.10 [repealed]	RSA 12-G:42, VI
Pda 510.01 – 510.02	RSA 12-G:42, VI; 12-G:50, I(b)
Pda 510.03 [repealed]	RSA 12-G:42, VI; 12-G:50, I(b)
Pda 510.03 [renumbered from 510.04]	RSA 12-G:42, VI, 12-G:50, I(b), (f)
Pda 510.04 – 510.07 [renumbered from 510.05 – 510.08]	RSA 12-G:42, VI; 12-G:50, I(b)
Pda 511	RSA 12-G:42, VI
Pda 513	RSA 12-G:42, VI
Pda 514	RSA 12-G:42, VI, VII
Pda 515.01	RSA 12-G:42, III; 12-G:50, I(c), (f)

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: Geno J. Marconi

Title: Division Director

Address: Pease Development Authority
Division of Ports and Harbors
555 Market Street
Portsmouth, NH 03801

Phone #: 603-436-8500
Fax #: 603-436-2780
E-mail: g.marconi@peasedev.org

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: March 28, 2011

_X__Fax _X__E-mail ____Other format (specify):_____

9. Public hearing scheduled for:

Date and Time: Wednesday, March 16, 2011
6:00 p.m.

Place: Division of Ports and Harbors office
555 Market Street
Portsmouth, NH 03801

Exhibit 2B

NN 2011-21 Continued

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant)

FIS # 11:003, dated 02/10/11

1. Comparison of the costs of the proposed rule(s) to the existing rule(s):
When compared to the existing rules the proposed rules will increase restricted revenue and expenditures by an indeterminable amount, and may increase costs to State citizens and independently owned businesses by an indeterminable amount.

2. Cite the Federal mandate. Identify the impact on state funds:
No federal mandate, no impact on state funds

3. Cost and benefits of the proposed rule(s):

A. To State general or State special funds:
The Division of Ports and Harbors (DPH) estimates that the issuing of temporary seasonal mooring permits will generate $3,600 to $14,400 of revenue to the Pease Development Authority Ports and Harbors Fund. The DPH states the average length of permitted vessels is 24 feet and the cost for the mooring permit is $10.00 per foot. The DPH permits 1,500 vessels per year and estimates less than 5% of the individuals owning the permitted vessels would request a temporary mooring permit. The estimated revenue is calculated by multiplying the number of temporary permits by the average length of a vessel by the cost per foot.

Temporary Permits	Ave. Length of Vessel	Cost per foot	Total
15 (1% *1,500)	24 ft	$10 per foot	$3,600
30 (2% *1,500)	24 ft	$10 per foot	$7,200
45 (3% *1,500)	24 ft	$10 per foot	$10,800
60 (4% *1,500)	24 ft	$10 per foot	$14,400

Pursuant to RSA 12-G:42, XI(c), fees relating to mooring permits, including temporary seasonal moorings, shall be set to recover all of the budget expenses associated with the implementation of the mooring permit and wait list system as well as a reasonable portion of the budget expense consistent with the mooring program.

B. To State citizens and political subdivisions:
To the extent a State citizen requests and is granted a temporary mooring permit they would have increased costs. There is no cost to political subdivisions.

C. To independently owned businesses:
To the extent an independently owned business requests and is granted a temporary mooring permit, they would have increased costs.

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution: The proposed rules do not mandate any fees, duties or expenditures on a political subdivision of the state, and therefore do not violate Pt. 1, Article 28-a of the New Hampshire Constitution.

Exhibit 2B

Notice Number 2011-22 Rule Number Env-Wq 1708.10, Env-Wq 1708.12

1. Agency Name & Address:

Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

2. RSA Authority: RSA 485-A:6, I; RSA 485-A:8, VI
3. Federal Authority: Clean Water Act, 33 U.S.C. 1251 *et seq*
4. Type of Action:
   - Adoption ____
   - Amendment ____
   - Repeal ____
   - Readoption ____
   - Readoption w/amendment X

5. Short Title: Significant Discharges: Alternatives Analysis/Economic-Social Importance; Water Transfers

6. (a) Summary of what the rule says and the effect of the rule on those regulated:

Env-Wq 1700 establishes numerical and narrative water quality standards for surface waters in this state as required by RSA 485-A:8-13 and the federal Clean Water Act, 33 U.S.C. 1251 *et seq*. Revisions to Env-Wq 1708.10 are proposed to (1) clarify the review process for proposed new or modified activities that are determined (under existing Env-Wq 1708.09) to result in significant lowering of water quality; and (2) replace the incorporation of the "Interim Economic Guidance for Water Quality Standards" EPA- 823-B-95-002, dated March 1995 ("Interim Guidance"), which is used when demonstrating the importance of the economic or social impact of a significant discharge, with state-specific requirements for demonstrating that the economic or social development benefits of a proposed project outweigh the detriment to the environment that will be caused by the project. Revisions to Env-Wq 1708.12 are proposed to clarify the criteria that must be met for approval of new water transfers.

6. (b) Brief description of the groups affected:

The rules will affect any individual or entity that proposes a new or modified activity that is not found to be insignificant under existing Env-Wq 1708.09 or that wishes to transfer water from one water body to another.

6. (c) Specific section or sections of state statute or federal statute or regulation which the rule is intended to implement:

Rule Section(s)	State Statute or Federal Statute or Regulation Implemented
Env-Wq 1708.10; Env-Wq 1708.12	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq.*

7. Contact person for copies and questions including requests to accommodate persons with disabilities:

Name: Philip Trowbridge
Title: Civil Engineer V
Address: Department of Environmental Services, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
Phone #: 271-8872
Fax#: 271-7894
E-mail: philip.trowbridge@des.nh.gov

The rules also can be viewed in PDF at http://des.nh.gov/organization/commissioner/legal/rulemaking/index.htm

TTY/TDD Access: Relay NH 1-800-735-2964 or dial 711 (in NH)

8. Deadline for submission of materials in writing or, if practicable for the agency, in the electronic format specified: **4:00 p.m. on Monday, April 25, 2011**

☒Fax ☒E-mail ☐Other format (specify):

Exhibit 2B

NN 2011-22 Continued

9. Public hearing scheduled for:

Date and Time: Thursday, April 14, 2011 at 1:45 p.m..

Place: Rooms 112-113-114, DES Offices, 29 Hazen Drive, Concord, NH

10. Fiscal Impact Statement (Prepared by Legislative Budget Assistant): FIS #11:014, dated 02/04/11:

1. **Comparison of the costs of the proposed rule(s) to the existing rule(s):**
   There is no difference in cost when comparing the proposed rule to the existing rules.

2. **Cite the Federal mandate. Identify the impact on state funds:**
   No federal mandate, no impact on state funds. The Clean Water Act, 33 USC 1313 requires states to adopt water quality standards that meet the requirements of the Act. If the state fails to adopt water quality standards that meet the requirements of the Act, the Environmental Protection Agency will be required to promulgate federal regulations to serve as NH water quality standards.

3. **Cost and benefits of the proposed rule(s):**

   A. **To State general or State special funds:**
      None

   B. **To State citizens and political subdivisions:**
      None

   C. **To independently owned businesses:**
      None

11. Statement Relative to Part I, Article 28-a of the N.H. Constitution:

The proposed amendments do not create, modify, or expand any program in such a way as to require action by political subdivisions, and so do not require political subdivisions to make any expenditures. The rules thus do not violate Part I, Article 28-a of the N.H. Constitution.

Exhibit 2B

REQUEST FOR ADVANCE PUBLIC COMMENT ON SUBJECT MATTER OF POSSIBLE RULEMAKING

Rule Number: Env-Wq 1700

1. Agency Name & Address:

Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

2. RSA Authority: RSA 485-A:6, I; RSA 485-A:8, VI
3. Federal Authority: Clean Water Act, 33 U.S.C. 1251 *et seq*
4. Type of Action:
- ☐ Adoption
- ☐ Amendment
- ☐ Repeal
- ☐ Readoption
- ☒ Readoption w/ possible amendment

5. Short Title: Surface Water Quality Standards

IN ACCORDANCE WITH RSA 541-A:11, VIII THIS AGENCY IS SOLICITING PUBLIC COMMENT ON A SUBJECT MATTER OF POSSIBLE RULEMAKING UNDER ACTIVE CONSIDERATION PRIOR TO FORMALLY PROPOSING RULES IN THE RULEMAKING PROCESS. WHERE, WHEN, AND HOW PERSONS MAY PROVIDE COMMENT ARE INDICATED BELOW.

6. (a) Summary of the subject matter, or summary of the rule if drafted, and the effect on those regulated:

The Department of Environmental Services is seeking advance public comment to determine if any modifications to New Hampshire's surface water quality standards are needed. The New Hampshire surface water quality standards consist of RSA 485-A:1-4, 8-11 and Env-Wq 1700, Surface Water Quality Regulations. The Department is seeking suggestions from the public for possible revisions to the standards per 40 CFR 131.20. These suggestions will be considered by the Department's Water Quality Standards Advisory Committee for future modifications to New Hampshire's water quality standards. The text of RSA 485-A:1-4, 8-11 can be accessed at http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-L-485-A.htm. The existing rules can be accessed directly at http://des.nh.gov/organization/commissioner/legal/rules/documents/env-wq1700.pdf.

6. (b) Brief description of the groups affected:

Surface water quality standards may affect (1) any individual who uses surface waters of the state for any reason, including but not limited to water supply, irrigation, or recreation, and (2) any individual or entity that causes or allows any discharge to surface waters of the state.

7. Contact person for copies, questions, and receipt of comment including requests to accommodate persons with disabilities:

Name:	Philip Trowbridge	Title:	Civil Engineer V
Address:	Department of Environmental Services 29 Hazen Drive P.O. Box 95 Concord, NH 03302-0095	Phone #: Fax #: E-mail:	271-8872 271-7894 philip.trowbridge@des.nh.gov

TTY/TDD Access: Relay NH 1800-735-2964 or dial 711 (in NH)

8. Deadline for submission of comment in writing or, if practicable for the agency, in the electronic format specified:

☒Fax ☒E-mail ☐Other format (specify):

9. Public hearing scheduled for:

Date and Time:	**Thursday, April 14, 2010 at 2:00 p.m.** or immediately following the public hearing on proposed amendments to Env-Wq 1708.10 and Env-Wq 1708.12, whichever is later.
Place:	**Rooms 112-113-114, DES Offices, 29 Hazen Drive, Concord, NH**

Exhibit 2B

SPECIAL NOTICE

Pursuant to RSA 541-A:9, I(h) and RSA 125-I:4, IV, the Director of Legislative Services hereby publishes the following notice filed by the Department of Environmental Services for publication in the *Rulemaking Register* relative to Document #9865 (Final Proposal 2010-137):

NOTICE OF REVISIONS TO THE LIST OF REGULATED TOXIC AIR POLLUTANTS

Final Proposal #: FP # 2010-137

Rule Number: Env-A 1450.01(b), Table 1450-1

1. Agency Name & Address:

   NH Dept. of Environmental Services
   Air Resources Division
   29 Hazen Drive
   Concord, NH 03301

2. Effective Date of Rule: February 18, 2011

3. Short Title: REGULATED TOXIC AIR POLLUTANTS

4. In accordance with RSA 125-I:4, IV, the Department of Environmental Services hereby gives notice that a rule has been adopted by the Commissioner which amends the list of regulated toxic air pollutants, their classifications, ambient air limits, and *de minimis* emission levels. This rule has been filed with the Director of Legislative Services in accordance with RSA 541-A, the Administrative Procedure Act. In accordance with RSA 125-I:4, IV, this rule takes effect on February 18, 2011, the day on which this notice is published.

   If any source is required to obtain or modify a permit under the provisions of RSA 125-I or RSA 125-C as a result of these revisions to the list of regulated toxic air pollutants, the source shall have 90 days following publication of this notice to file a complete application for such permit or modification with the Department.

5. Anyone may obtain a copy of the revisions to the list of regulated toxic air pollutants from the Department, by either of the following methods:

   a. Accessing the following Internet address:
   http://des.nh.gov/organization/commissioner/legal/rulemaking/index.htm or

   b. Requesting a paper copy by contacting:

      NH Dept. of Environmental Services
      Public Information & Permitting Office
      29 Hazen Drive
      Concord, NH 03301
      (603) 271-8808

6. Contact person for questions:

   Name: Karla McManus
   Title: ARD Rules &Planning Manager

   Address: NH Dept. of Environmental Services
   Air Resources Division
   PO Box 95
   Concord, NH 03302-0095

   Phone #: 271-6854

Exhibit 3

CHAPTER Env-W~~s~~***q*** 1700 SURFACE WATER QUALITY REGULATIONS

Statutory Authority: RSA 485-A:6, I and RSA 485-A:8, VI

PART Env-W~~s~~***q*** 1701 INTRODUCTION

Env-W~~s~~***q*** 1701.01 Purpose. The purpose of these rules is to establish water quality standards for the state's surface water uses as set forth in RSA 485-A:8, I, II, III and V. These standards are intended to protect public health and welfare, enhance the quality of water and serve the purposes of the Clean Water Act and RSA 485-A. These standards provide for the protection and propagation of fish, shellfish, and wildlife, and provide for such uses as recreational activities in and on the surface waters, public water supplies, agricultural and industrial uses, and navigation in accord with RSA 485-A:8, I and II.

Env-W~~s~~***q*** 1701.02 Applicability.

(a) These rules shall apply to all surface waters.

(b) These rules shall apply to any person who causes point or nonpoint source discharge(s) of pollutants to surface waters, or who undertakes hydrologic modifications, such as dam construction or water withdrawals, or who undertakes any other activity that affects the beneficial uses or the level of water quality of surface waters.

PART Env-W~~s~~***q*** 1702 DEFINITIONS

Env-W~~s~~***q*** 1702.01 "Acute toxicity" means an adverse effect such as mortality or debilitation caused by an exposure of 96 hours or less to a toxic substance.

Env-W~~s~~***q*** 1702.02 "Antidegradation" means a provision of the water quality standards that maintains and protects existing water quality and uses.

Env-W~~s~~***q*** 1702.03 "Assimilative capacity" means the amount of a pollutant or pollutants that can safely be released to a waterbody without causing violations of applicable water quality criteria or negatively impacting uses.

Env-W~~s~~***q*** 1702.04 "Benthic community" mean the community of plants and animals that live on, over, or in the substrate of the surface water.

Env-W~~s~~***q*** 1702.05 "Benthic deposit" means any sludge, sediment or other organic or inorganic accumulations on the bottom of the surface water.

Env-W~~s~~***q*** 1702.06 "Best management practices" means those practices which are determined, after problem assessment and examination of all alternative practices and technological, economic and institutional considerations, to be the most effective practicable means of preventing or reducing the amount of pollution generated by point or nonpoint sources to a level compatible with water quality goals.

Env-W~~s~~***q*** 1702.07 "Biological integrity" means the ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.

Env-W~~s~~***q*** 1702.08 "Biota" means species of plants or animals occurring in surface waters.

Env-W~~s~~***q*** 1702.09 "CFR" means the Code of Federal Regulations published by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Env-W~~s~~***q*** 1702.10 "Chronic toxicity" means an adverse effect such as reduced reproductive success or growth, or poor survival of sensitive life stages, which occurs as a result of prolonged exposure to a toxic substance.

Env-W~~s~~***q*** 1702.11 "Class A and B waters" means those surface waters that are legislatively classified as Class A or B waters pursuant to RSA 485-A:8, I, II and III.

Env-W~~s~~***q*** 1702.12 "Clean Water Act ***(CWA)***" means the ~~F~~***f***ederal Clean Water Act, Pub. L. 92-500**,** as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117, Pub. L. 100-4, 33 U.S.C. 1251 et seq.

Env-W~~s~~***q*** 1702.13 "Community" means one or more populations co-occurring in surface waters.

Env-W~~s~~***q*** 1702.14 "Criterion" means:

(a) A designated concentration of a pollutant;

(b) A narrative statement concerning that pollutant that when not exceeded, will protect an organism, a population, a community, or a prescribed water use; or

(c) A numeric value or narrative statement related to other characteristics of the surface waters, such as flow and biological community integrity.

Env-W~~s~~***q*** 1702.15 "Cultural eutrophication" means the human-induced addition of wastes containing nutrients to surface waters which results in excessive plant growth and/or a decrease in dissolved oxygen.

Env-W~~s~~***q*** 1702.16 "Department" means the department of environmental services.

Env-W~~s~~***q*** 1702.17 "Designated uses" means those uses specified in water quality standards for each waterbody or segment whether or not such uses are presently occurring.

Env-W~~s~~***q*** 1702.18 "Discharge" means:

(a) The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters, either directly or indirectly through the groundwater, whether done intentionally, unintentionally, negligently or otherwise; or

(b) The placing of a pollutant in a location where the pollutant is likely to enter surface waters.

Env-W~~s~~***q*** 1702.19 "Dissolved oxygen~~"~~ (D.O.)**"** means the oxygen dissolved as a gas in sewage, water or other liquid expressed in milligrams per liter (mg/l), parts per million (ppm), or percent saturation.

Env-W~~s~~***q*** 1702.20 "Effluent limitation(s)" means any restriction(s) imposed by the department pursuant to RSA 485-A on quantities, discharge rates, characteristics, and concentrations of pollutants which are discharged to surface waters.

Env-W~~s~~***q*** 1702.21 "***Environmental Protection Agency (***EPA***)***" means the United States Environmental Protection Agency.

Env-W~~s~~***q*** 1702.22 "Epilimnion" means the upper, well-circulated warm layer of a thermally stratified lake, pond, impoundment or reservoir.

Env-W~~s~~***q*** 1702.23 "Existing uses" means those uses, other than assimilation or waste transport, which actually occurred in the waterbody on or after November 28, 1975, whether or not they are included in the water quality standards.

Env-W~~s~~***q*** 1702.24 "High quality surface waters" means all surface waters whose water quality is better than required by any aquatic life and/or human health water quality criteria contained in these rules or other criteria assigned to the surface water, or whose qualities and characteristics make them critical to the propagation or survival of important living natural resources.

Env-W~~s~~***q*** 1702.25 "Industrial waste" means "industrial waste" as defined in RSA 485-A:2, VI, namely "any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade or business or from development of any natural resources."

Env-W~~s~~***q*** 1702.26 "Maintain and protect" means to preserve the existing and designated uses of surface waters.

Env-W~~s~~***q*** 1702.27 "Mixing zone" means a defined area or volume of the surface water surrounding or adjacent to a wastewater discharge where the surface water, as a result of the discharge, might not meet all applicable water quality standards.

Env-W~~s~~***q*** 1702.28 "Most sensitive use" means the use which is most susceptible to degradation by a specific pollutant, combination of pollutants, or activity, such as:

(a) Drinking;

(b) Swimming;

(c) Boating;

(d) Fish and aquatic life propagation;

(e) Fish consumption by higher level consumers including man; or

(f) Irrigation.

Env-W~~s~~***q*** 1702.29 "Naturally occurring conditions" means conditions which exist in the absence of human influences.

Env-W~~s~~***q*** 1702.30 "Nephelometric turbidity unit~~"~~ ~~or "~~***(***NTU***)***" means a standard used to measure the optical property that causes light to be scattered and absorbed rather than transmitted in straight lines through water, as measured by a nephelometer.

Env-W~~s~~***q*** 1702.31 "Noncontact cooling water" means water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product or finished product and to which no pollutants, other than heat, have been added.

Env-W~~s~~***q*** 1702.32 "Nonpoint source" means any source other than a point source as defined in Env-W~~s~~***q*** 1702.38.

Env-W~~s~~***q*** 1702.33 "No observed effect concentration~~"~~ (NOEC)***"*** means the highest measured continuous concentration, in percent, of an effluent at which no adverse effects are observed on the aquatic test organisms.

Env-W~~s~~***q*** 1702.34 "Nuisance species" means any species of flora or fauna living in or near the water whose noxious characteristics or presence in sufficient number or mass prevent or interfere with a designated use of those surface waters.

Env-W~~s~~***q*** 1702.35 "Other wastes" means "other wastes" as defined in RSA 485-A:2, VIII, namely, "garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals and other substances other than sewage or industrial wastes, and any other substance harmful to human, animal, fish~~,~~ or aquatic life."

Env-W~~s~~***q*** 1702.36 "Outstanding Resource Water~~"~~ ~~or "~~***(***ORW***)***" means surface waters of exceptional recreational or ecological significance.

Env-W~~s~~***q*** 1702.37 "pH" means a measure of the hydrogen ion concentration in a solution, expressed as the logarithm to the base 10, of the reciprocal of the hydrogen ion concentration in gram moles per liter.

Env-W~~s~~***q*** 1702.38 "Point source" means a discernible, confined, and discrete conveyance from which pollutants are or might be discharged, excluding return flows from irrigated agriculture or agricultural stormwater runoff, and including but not limited to a:

(a) Pipe;

(b) Ditch;

(c) Channel;

(d) Tunnel;

(e) Conduit;

(f) Well;

(g) Discrete fissure;

(h) Container;

(i) Rolling stock;

(j) Concentrated animal feeding operation; or

(k) Vessel or other floating craft.

Env-W~~s~~***q*** 1702.39 "Pollutant" means "pollutant" as defined in 40 CFR 122.2.

Env-W~~s~~***q*** 1702.40 "Pollution" means the man-made or man-induced alteration of the chemical,

physical, biological, or radiological integrity of water.

Env-W~~s~~***q*** 1702.41 "Population" means a group of individuals of one biological species co-occurring in time and space.

Env-W~~s~~***q*** 1702.42 "Publicly owned treatment works~~"~~ (POTW)***"*** means any device or system used in the treatment of municipal sewage and/or industrial wastewater which is owned by the state, or a political subdivision of the state.

Env-W~~s~~***q*** 1702.43 "~~Radio nuclide~~ ***Radionuclide***" means a radioactive atomic nucleus specified by its atomic number, atomic mass and energy state.

Env-W~~s~~***q*** 1702.44 "7Q10" means the lowest average flow which occurs for 7 consecutive days on an annual basis with a recurrence interval of once in 10 years on average, expressed in terms of volume per time period.

Env-W~~s~~***q*** 1702.45 "Sewage" means "sewage" as defined in RSA 485-A:2, X, namely, "the water carried waste products from buildings, public or private, together with such groundwater infiltration and surface water as may be present."

Env-W~~s~~***q*** 1702.46 "Surface waters" means "surface waters of the state" as defined in RSA 485-A:2, XIV and waters of the United States as defined in 40 CFR 122.2.

Env-W~~s~~***q*** 1702.47 "Tainting substance" means any material that can impart objectionable taste, odor, or color to the flesh of fish or other edible aquatic organisms.

Env-W~~s~~***q*** 1702.48 "Tidal waters" means those portions of the Atlantic Ocean within the jurisdiction of the state, and other surface waters subject to the rise and fall of the tide.

Env-W~~s~~***q*** 1702.49 "Toxicity test" means a test to determine the toxicity of a chemical or an effluent that involves exposing test organisms in a laboratory setting to one or more concentrations of the chemical or dilutions of the effluent in accordance with standard laboratory procedures.

Env-W~~s~~***q*** 1702.50 "Toxic unit chronic~~"~~ (TU_c)***"*** means the reciprocal of the effluent dilution that causes no unacceptable effect to the test organisms by the end of the chronic exposure period. The TU_c can be calculated by dividing 100 by the chronic NOEC value.

Env-W~~s~~***q*** 1702.51 "Waste" means "~~industrial~~ waste" as defined in RSA 485-A:2, ***X***VI, ***namely*** "***industrial waste*** and other wastes***.***"~~ as defined in RSA 485-A:2, VIII.~~

Env-W~~s~~***q*** 1702.52 "Water quality standards" means the combination of designated uses of surface waters, and the water quality criteria for such surface waters based upon such uses.

Env-W~~s~~***q*** 1702.53 "Wetland" means "wetland" as defined in ~~Wt 101.87~~ ***RSA 482-A:2, X***, namely "an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas as delineated in accordance with ***Env-***Wt~~.~~ ~~301.01~~ ***100 et seq***.

Env-W~~s~~***q*** 1702.54 "Zone of passage" means an area bordering a mixing zone and which is free from pollutants and which allows for unobstructed movement of aquatic organisms.

PART Env-W~~s~~***q*** 1703 WATER QUALITY STANDARDS

Env-W~~s~~***q*** 1703.01 Water Use Classifications.

(a) State surface waters shall be divided into class A and class B, pursuant to RSA 485-A:8, I, II and III. Each class shall identify the most sensitive use which it is intended to protect.

(b) All surface waters shall be restored to meet the water quality criteria for their designated classification including existing and designated uses, and to maintain the chemical, physical, and biological integrity of surface waters.

(c) All surface waters shall provide, wherever attainable, for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the surface waters.

(d) Unless the flows are caused by naturally occurring conditions, surface water quantity shall be maintained at levels adequate to protect existing and designated uses.

Env-W~~s~~***q*** 1703.02 Wetlands Criteria.

(a) Subject to (b)***,*** below, wetlands shall be subject to the criteria listed in this part.

(b) Wherever the naturally occurring conditions of the wetlands are different from the criteria listed in these rules, the naturally occurring conditions shall be the applicable water quality criteria.

Env-W~~s~~***q*** 1703.03 General Water Quality Criteria.

(a) The presence of pollutants in the surface waters shall not justify further introduction of pollutants from point ~~and/~~or nonpoint sources***, alone or in any combination***.

(b) State surface waters shall retain their legislated classification even if they fail to meet any or all of the general, class-specific, or toxic criteria contained in this part.

(c) The following physical, chemical and biological criteria shall apply to all surface waters:

(1) All surface waters shall be free from substances in kind or quantity which:

a. Settle to form harmful deposits;

b. Float as foam, debris, scum or other visible substances;

c. Produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated uses;

d. Result in the dominance of nuisance species; or

e. Interfere with recreational activities;

(2) The level of radioactive materials in all surface waters shall not be in concentrations or combinations that would:

a. Be harmful to human, animal or aquatic life or the most sensitive designated use;

b. Result in ~~radio-nuclides~~ ***radionuclides*** in aquatic life exceeding the recommended limits for consumption by humans; or

c. Exceed limits specified in EPA's national drinking water regulations or Env-Ws 300 ***or successor rules in subtitle Env-Dw,*** whichever are more stringent; and

(3) Tainting substances shall not be present in concentrations that individually or in combination are detectable by taste and odor tests performed on the edible portions of aquatic organisms.

Env-W~~s~~***q*** 1703.04 Class-Specific Criteria. In addition to the general water quality criteria specified in Env-W~~s~~***q*** 1703.03, the class criteria specified in Env-W~~s~~***q*** 1703.05 through Env-W~~s~~***q*** 1703.32 shall apply to all surface waters. The surface waters in each classification shall satisfy all the provisions of the lower classifications.

Env-W~~s~~***q*** 1703.05 Combined Sewer Overflows.

(a) To demonstrate that the class B criteria cannot reasonably be met in surface waters as a result of the combined sewer overflows, the applicant ***for a water discharge permit under RSA 485-A:13*** shall conduct and submit ~~to the department,~~ a use attainability analysis (UAA) in accord with 40 CFR Part 131 ***to the department***.

(b) If, after public notice and comment, the department determines, based on the information provided in (a)***,*** above, that the UAA supports the establishment of less stringent criteria, it shall recommend a change in the classification of the waterbody to the legislature.

(c) Exceedances of class B criteria and uses shall be limited to those identified in the Combined Sewer Overflow Facilities Plan after full implementation of the control measures.

Env-W~~s~~***q*** 1703.06 Bacteria.

(a) Uses and criteria associated with bacteria shall be as set forth in RSA 485-A:8, I, II, and V.

(b) Subject to (c)***,*** below, the bacteria criteria shall be applied at the end of a wastewater treatment facility's discharge pipe.

(c) For combined sewer overflows ~~which~~ ***that*** discharge into non-tidal waters, a bacteria criteria of 1***,***000 Escherichia coli per 100 milliliters shall be applied at the end of the combined sewer overflow's discharge pipe.

Env-W~~s~~***q*** 1703.07 Dissolved Oxygen.

(a) Class A waters shall have a dissolved oxygen content of at least 75% saturation, based on a daily average, and an instantaneous minimum of at least 6 mg/l at any place or time except as naturally occurs.

(b) Except as naturally occurs, or in waters identified in RSA 485-A:8, III, or subject to (c)***,*** below, class B waters shall have a dissolved oxygen content of at least 75% of saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5 mg/l.

(c) For the period from October 1st to May 14th, in areas identified by the fish and game

department as cold water fish spawning areas of species whose early life stages are not directly exposed to the water, the 7 day mean dissolved oxygen concentration shall be at least 9.5 mg/l and the instantaneous minimum dissolved oxygen concentration shall be at least 8 mg/l. This period shall be extended to June 30 for a particular waterbody if the fish and game department determines it is necessary to protect spring spawners ~~and~~ ***or*** late hatches of fall spawners***, or both***.

(d) Unless naturally occurring or subject to (a)***,*** above, surface waters within the top 25 percent of depth of thermally unstratified lakes, ponds, impoundments and reservoirs or within the epilimnion shall contain a dissolved oxygen content of at least 75 percent saturation, based on a daily average and an instantaneous minimum dissolved oxygen content of at least 5 mg/l. Unless naturally occurring, the dissolved oxygen content below those depths shall be consistent with that necessary to maintain and protect existing and designated uses.

Env-W~~s~~***q*** 1703.08 Benthic Deposits.

(a) Class A waters shall contain no benthic deposits, unless naturally occurring.

(b) Class B waters shall contain no benthic deposits that have a detrimental impact on the benthic community, unless naturally occurring.

Env-W~~s~~***q*** 1703.09 Oil and Grease.

(a) Class A waters shall contain no oil or grease, unless naturally occurring.

(b) Class B waters shall contain no oil or grease in such concentrations that would impair any existing or designated uses.

Env-W~~s~~***q*** 1703.10 Color.

(a) Class A waters shall contain no color, unless naturally occurring.

(b) Class B waters shall contain no color in such concentrations that would impair any existing or designated uses, unless naturally occurring.

Env-W~~s~~***q*** 1703.11 Turbidity.

(a) Class A waters shall contain no turbidity, unless naturally occurring.

(b) Class B waters shall not exceed naturally occurring conditions by more than 10 NTUs.

(c) Waters identified in RSA 485-A:8, III shall contain no turbidity of unreasonable kind or quality.

(d) For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge, a violation of the turbidity standard shall be deemed to have occurred.

Env-W~~s~~***q*** 1703.12 Slicks, Odors, and Surface Floating Solids.

(a) Class A waters shall contain no slicks, odors, or surface floating solids unless naturally occurring.

(b) Class B waters shall contain no slicks, odors, or surface floating solids that would impair any existing or designated use, unless naturally occurring.

(c) Waters identified in RSA 485-A:8, III shall be free from slick***s***, odors, and surface floating solids of unreasonable kind or quantity.

Env-W~~s~~***q*** 1703.13 Temperature.

(a) There shall be no change in temperature in class A waters, unless naturally occurring.

(b) Temperature in class B waters shall be in accordance with RSA 485-A:8, II, and VIII.

Env-W~~s~~***q*** 1703.14 Nutrients.

(a) Class A waters shall contain no phosphorus or nitrogen unless naturally occurring.

(b) Class B waters shall contain no phosphorus or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.

(c) Existing discharges containing either phosphorus or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards.

(d) There shall be no new or increased discharge of phosphorus into lakes or ponds.

(e) There shall be no new or increased discharge(s) containing phosphorus or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds.

Env-W~~s~~***q*** 1703.15 Gross Beta Radioactivity. Class A and B waters shall not contain gross beta radioactivity in excess of 1***,***000 picocuries per liter.

Env-W~~s~~***q*** 1703.16 Strontium-90. Class A and B waters shall not contain strontium-90 in excess of 10 picocuries per liter.

Env-W~~s~~***q*** 1703.17 Radium-226. Class A and B waters shall contain no radium-226 in excess of 3 picocuries per liter.

Env-W~~s~~***q*** 1703.18 pH.

(a) The pH of Class A waters shall be as naturally occurs.

(b) The pH of Class B waters shall be 6.5 to 8.0, unless due to natural causes.

(c) The pH of waters identified in RSA 485-A:8, III shall be 6.0 to 9.0, unless due to natural causes.

Env-W~~s~~***q*** 1703.19 Biological and Aquatic Community Integrity.

(a) The surface waters shall support and maintain a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.

(b) Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function.

Env-W~~s~~***q*** 1703.20 Human Health Criteria for Toxic Substances.

(a) The department shall use a risk factor of one in ~~one million~~ ***1,000,000*** when determining human health criteria for all new discharges. The department shall also use a one in ~~one million~~ ***1,000,000*** risk factor in determining human health criteria for all existing discharges unless it can be demonstrated by the applicant ***for a water discharge permit under RSA 485-A:13*** that the criteria obtained using the one in ~~one million~~ ***1,000,000*** risk factor cannot be achieved because it is either technologically impossible or economically unfeasible. However, in no case shall the department allow a risk factor greater than one in ~~one hundred thousand~~ ***100,000***.

(b) For the protection of human health, class A and B waters shall not contain dioxin (2, 3, 7, 8 - TCDD) in excess of 0.001 ng/l, unless allowed under part Env-W~~s~~***q*** 1707.

Env-W~~s~~***q*** 1703.21 Water Quality Criteria for Toxic Substances.

(a) Unless naturally occurring or allowed under part Env-W~~s~~q 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that:

(1) Injure or are inimical to plants, animals, humans or aquatic life; or

(2) Persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife which might consume aquatic life.

(b) Unless allowed in part Env-W~~s~~***q*** 1707 or naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703.1, subject to the notes as explained in Env-W~~s~~***q*** 1703.22, as follows:

TABLE 1703.1
Water Quality Criteria For Toxic Substances

	Protection of Aquatic Life Concentration in ***micrograms per liter (***ug/l***)***				Protection of Human Health Units per Liter	
Chemical	Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
Acenaphthene	1,700	520	970	710	20 ug[j]	20 ug[j]
Acrolein	68	21	55	--	320 ug	780 ug
Acrylonitrile	7,550	2,600	--	--	0.059 ug[c]	0.66 ug[c]
Aldrin	3.0[k]	--	1.3[k]	--	0.13 ng[c]	0.14 ng[c]
Alkalinity	--	20,000	--	--	--	--
Aluminum	750	87	--	--	--	--

Ammonia[a]					--	--
Aniline	28	14	77	37	--	--
Anthracene	(see Polynuclear Aromatic Hydrocarbons)				9,600 ug	110,000 ug
Antimony	9,000	1,600	--	--	14 ug[l]	4300 ug
Arsenic	340[d,i]	150[d,i]	69[d,i]	36[d,i]	18 ng[b,c]	140 ng[b,c]
Asbestos	--	--	--	--	7,000,000 fibres[c]	
Barium	--	--	--	--	1.0 mg[l]	--
Benzene	5,300	--	5,100	700	1.2 ug[c]	71 ug[c]
Benzidine	2,500	--	--	--	0.12 ng[c]	0.54 ng[c]
Benzo(a) Anthracene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Benzo(a) Pyrene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Benzo(b) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Benzo(g,h,i) Perylene	(see Polynuclear Aromatic Hydrocarbons)				--	--
Benzo(k) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Beryllium	130	5.3	--	--	l	--
BHC	100[e]	--	0.34[e]	--	(see individual compounds)	
alpha-BHC	(see BHC)				3.9 ng[c]	13 ng[c]
beta-BHC	(see BHC)				14 ng[c]	46 ng[c]
delta-BHC	(see BHC)				0.0123 ug	0.0414 ug
gamma-BHC (Lindane)	0.95	.08	.16[k]	--	19 ng[c]	63 ng[c]
technical-BHC	--	--	--	--	0.0123 ug	0.0414 ug
Bis (2-Chloroethyl) Ether	(see Chloroalkyl ethers)				0.031[c]	1.4[c]
Bis (2-Ethylhexy)Phthalate	(see Phthalate esters)				1.8 ug[c]	5.9 ug[c]
Bromoform	(see Halomethanes)				4.3 ug[c]	360 ug[c]
4-Bromophenyl phenyl ether	(see Haloethers)				--	--
Butyl benzyl phthalate	(see Phthalate esters)				3000 ug	5200 ug
Cadmium[i]	0.95[f,d]	0.80[f,d]	42[d]	9.3[d]	--	--
Carbon Tetrachloride	35,200	--	50,000	--	0.25 ug[c]	4.4 ug[c]
Chlordane	2.4[k]	0.0043[k]	0.09[k]	0.004[k]	2.1 ng[c]	2.2 ng[c]
Chlorinated benzenes	250[e]	50[e]	160[e]	129[e]	(see individual compounds)	
Chlorobenzene	(See Chlorinated benzenes)				20 ug[j]	20 ug[j]
Chlorides	860,000	230,000	--	--	--	--
Chlorinated napthalenes	1,600[e]	--	7.5[e]	--	(see individual compounds)	
Chlorine	19	11	13	7.5	l	--
Chloroalkyl ethers	238,000[e]	--	--	--	(see individual compounds)	
Chloroethyl ether (Bis-2)	(see Chloroalkyl ethers)				***0***.031 ug[c]	1.4 ug[c]
Chloroethyl vinyl ether-2	(see Chloroalkyl ethers)				--	--
Chlorodibromomethane	(see Halomethanes)				0.41 ug[c]	34 ug[c]
Chloroethoxy methane (Bis-2)	(see Chloroalkyl ethers)				--	--
Chloroform	28,900	1,240	(see Halomethanes)		5.7 ug[c]	470 ug[c]
Chloroisopropyl ether (Bis-2)	(see Chloroalkyl ethers)				1,400 ug	170,000 ug
p-Chloro-m-cresol	30	--	--	--	3,000 ug[j]	3,000 ug[j]
Chloromethyl ether (Bis)	(see Chloroalkyl ethers)				0.13 ng[c]	0.78 ng[c]
Chloronaphthalene 2	(see Chlorinated naphthalenes)				1,700 ug	4,300 ug
Chlorophenol 2	4,380	2,000	--	--	0.1 ug[j]	0.1 ug[j]
Chlorophenol 3	--	--	--	--	0.1 ug[j]	0.1 ug[j]

Chlorophenol 4	--	--	29,700	--	0.1 ug[j]	0.1 ug[j]
Chlorophenoxy herbicides (2,4,5-TP)	--	--	--	--	10 ug	--
Chlorophenoxy herbicides (2,4-D)	--	--	--	--	100 ug[l]	--
Chlorophenyl phenyl ether 4	(see Haloethers)				--	--
Chlorpyrifos	0.083	0.041	0.011	0.0056	--	--
Chloro-4 Methyl-3 Phenol	30	--	--	--	3,000 ug[j]	3,000 ug[j]
Chromium +6	16[d,i]	11[d,i]	1,100[d,i]	50[d,i]	l	--
Chromium+3	183[f,d,i]	24[f,d,i]	10,300	--	--	--
Chrysene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Copper[i]	3.6[f,d]	2.7[f,d]	4.8[d]	3.1[d]	1,000 ug[j]	1,000 ug[j]
Cyanide	22[m]	5.2[m]	1.0[m]	1.0[m]	700 ug[l]	220,000 ug
DDE(4,4')	1,050	--	14	--	0.59 ng[c]	0.59 ng[c]
DDD(4,4')	0.06	--	3.6	--	0.83 ng[c]	0.84 ng[c]
DDT(4,4')	1.1[k]	0.001[k]	0.13[k]	0.001[k]	0.59 ng[c]	0.59 ng[c]
Demeton	--	0.1	--	0.1	--	--
Dibenzo(a,h)Anthracene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Dibutyl Phthalate	(see Phthalate esters)				2.7 mg	12 mg
Dichlorobenzenes	1,120[e]	763[e]	1,970[e]	--	(see individual compounds)	
Dichlorobenzene(1,2)	(see Dichlorobenzenes)				2,700 ug[l]	17,000 ug
Dichlorobenzene(1,3)	(see Dichlorobenzenes)				400 ug	2600 ug
Dichlorobenzene(1,4)	(see Dichlorobenzenes)				400 ug[l]	2600 ug
Dichlorobenzidine(3,3')	--	--	--	--	0.04 ug[c]	0.077 ug[c]
Dichlorobromomethane	(see Halomethanes)				0.56 ug[c]	46 ug[c]
Dichlorodifluoromethane	(see Halomethanes)				6.9 mg[c]	570 mg[c]
Dichloroethane(1,2)	118,000	20,000	113,000	--	0.38 ug[c]	99 ug[c]
Dichloroethylenes	11,600[e]	--	224,000[e]	--	(see individual compounds)	
Dichloroethylene(1,1)	(see Dichloroethylenes)				0.057 ug[c]	3.2 ug[c]
Dichloroethylene(1,2-Trans)	(see Dichloroethylenes)				700 ug[l]	140,000 ug
Dichlorophenol(2,3)	--	--	--	--	0.04 ug[j]	0.04 ug[j]
Dichlorophenol(2,4)	2,020	365	--	--	93 ug	790 ug
Dichlorophenol(2,5)	--	--	--	--	0.5 ug[j]	0.5 ug[j]
Dichlorophenol(2,6)	--	--	--	--	0.2 ug[j]	0.2 ug[j]
Dichlorophenol(3,4)	--	--	--	--	0.3 ug[j]	0.3 ug[j]
Dichloropropanes	23,000[e]	5,700[e]	10,300[e]	3,040[e]	(see individual compounds)	
Dichloropropane(1,2)	(see Dichloropropanes)				0.52 ug[c]	39 ug[c]
Dichloropropenes	6,060[e]	244[e]	790[e]	--	(see individual compounds)	
Dichloropropene(1,3)	(see Dichloropropenes)				10 ug	1700 ug
Dieldrin	0.24	0.056	0.71[k]	0.0019[k]	0.14 ng[c]	0.14 ng[c]
Diethyl Phthalate	--	--	--	--	23 mg	120 mg
Dimethyl Phenol(2,4)	1,300	530	270	110	400 ug[j]	400 ug[j]
Dimethyl Phthalate	(see Phthalate esters)				313 mg	2.9 g
Di-n-butyl Phthalate	(see Phthalate esters)				2.7 mg	12 mg
Dinitrotoluenes	330[e]	230[e]	590[e]	370[e]	(see individual compounds)	
Dinitrotoluene(2,4)	(see Dinitrotoluenes)				0.11 ug[c]	9.1 ug[c]
Dinitrotoluene(2,6)	(see Dinitrotoluenes)				--	--
Dinitro-o-cresol (2,4)	(see Nitrophenols)				13.4 ug	765 ug

Dinitro-o-cresol (4,6)	(see Nitrophenols)				13.4 ug	765 ug
Dinitrophenols	(see Nitrophenols)				70 ug	14,000 ug
Dinitrophenol(2,4)	(see Nitrophenols)				70 ug	14,000 ug
Di-n-octyl phthalate	(see Phthalate esters)				--	--
Diphenylhydrazine(1,2)	270	--	--	--	0.04 ug[c]	0.54 ug[c]
Di-2-ethylhexyl phthalate	(see Phthalate esters)				1.8 ug[c]	5.9 ug[c]
alpha-Endosulfan	0.22[k]	0.056[k]	0.034[k]	0.0087[k]	110 ug	240 ug
beta-Endosulfan	0.22[k]	0.056[k]	0.034[k]	0.0087[k]	110 ug	240 ug
Endosulfan Sulfate	--	--	--	--	110 ug	240 ug
Endrin	0.086	0.036	0.037[k]	0.0023[k]	0.76 ug	0.81 ug
Endrin Aldehyde	--	--	--	--	0.76 ug	0.81 ug
Ethylbenzene	32,000	--	430	--	3,100 ug[l]	29,000 ug
Fluorene	(see Polynuclear Aromatic Hydrocarbons)				1,300 ug	14,000 ug
Guthion	--	0.01	--	0.01	--	--
Haloethers	360[e]	122[e]	--	--	(see individual compounds)	
Halomethanes	11,000[e]	--	12,000[e]	6,400[e]	(see individual compounds)	
Heptachlor	0.52[k]	0.0038[k]	0.053[k]	0.0036[k]	0.21 ng[c]	0.21 ng[c]
Heptachlor Epoxide	0.52[k]	0.0038[k]	0.053[k]	0.0036[k]	0.10 ng[c]	0.11 ng[c]
Hexachloroethane	980	540	940	--	1.9 ug[c]	8.9 ug[c]
Hexachlorobenzene	(see Chlorinated benzenes)				0.75 ng[c]	0.77 ng[c]
Hexachlorobutadiene	90	9.3	32	--	0.44 ug[c]	50 ug[c]
Hexachlorocyclo-hexane-(Technical)	(see BHC)				0.0123 ug	0.0414 ug
Hexachlorocyclopentadiene	7.0	5.2	7.0	--	1.0[j]	1.0[j]
Ideno(1,2,3-cd)Pyrene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Iron	--	1,000	--	--	0.3 mg	--
Isophorone	117,000	--	12,900	--	36 ug[c]	2,600 ug[c]
Lead[i]	14[f,d]	0.54[f,d]	210[d]	8.1[d]	--	--
Malathion	0.1	0.1		0.1	--	--
Manganese	--	--	--	--	50 ug	100 ug
Mercury	1.4[d,i,g]	0.77[d,i,g]	1.8[d,i,g]	0.94[d,i,g]	0.05 ug	0.051 ug
Methoxychlor	--	0.03	--	0.03	100 ug[l]	--
Methyl Bromide	(see Halomethanes)				48 ug	4,000 ug
Methyl Chloride	(see Halomethanes)				--	--
Methylene Chloride	(see Halomethanes)				4.7 ug[c]	1,600 ug[c]
2 Methyl-4,6-Dinitrophenol	(see Nitrophenols)				13.4 ug	765 ug
2-Methyl-4-chlorophenol	--	--	--	--	1,800 ug[j]	1,800 ug[j]
3-Methyl-4-chlorophenol	30	--	--	--	3,000 ug[j]	3,000 ug[j]
3-Methyl-6-chlorophenol	--	--	--	--	20 ug[j]	20 ug[j]
Mirex	--	0.001	--	0.001	--	--
Naphthalene	2,300	620	2,350	--	--	--
Nickel[i]	144.9 [f,d]	16.1 [f,d]	74[d]	8.2[d]	610 ug	4,600 ug
Nitrates	--	--	--	--	10 mg	--
Nitrobenzene	27,000	--	6,680	--	17 ug	30 ug[j]
Nitrophenols	230[e]	150[e]	4,850[e]	--	(see individual compounds)	
Nitrophenol 2	(see Nitrophenols)				--	--
Nitrophenol 4	(see Nitrophenols)				--	--
Nitrosamines	5,850[e]	--	3,300,000[e]	--	0.8 ng	1.24 ug

Nitrosodibutylamine N	(see Nitrosamines)				6.4 ng	587 ng
Nitrosodiethylamine N	(see Nitrosamines)				0.8 ng	1,240 ng
Nitrosodimethylamine N	(see Nitrosamines)				0.69 ng[c]	8.1 ug[c]
Nitrosodi-n-propylamine N	(see Nitrosamines)				0.005 ug[c]	1.4 ug[c]
Nitrosodiphenylamine N	(see Nitrosamines)				5.0 ug[c]	16 ug[c]
Nitrosopyrrolidine N	(see Nitrosamines)				16 ng	91,900 ng
Parathion	0.065	0.013	--	--	--	--
PCB	2.0[e]	0.014[e]	10.0[e]	0.03[e]	0.17 ng[c,n]	0.17 ng[c,n]
PCB-1242	(see PCB)				(see PCB)	(see PCB)
PCB-1254	(see PCB)				(see PCB)	(see PCB)
PCB-1221	(see PCB)				(see PCB)	(see PCB)
PCB-1248	(see PCB)				(see PCB)	(see PCB)
PCB-1260	(see PCB)				(see PCB)	(see PCB)
PCB-1016	(see PCB)				(see PCB)	(see PCB)
Pentachlorinated Ethanes	7,240	1,100	390	281	--	--
Pentachlorobenzene	(see Chlorinated benzenes)				3.5 ug	4.1 ug
Pentachlorophenol	5.28[h]	4.05[h]	13	7.9	0.28ug[c]	8.2ug[c]
Phenanthrene	(see Polynuclear Aromatic Hydrocarbons)					
Phenol	10,200	2,560	5,800	--	300 ug[j]	300 ug[j]
Phthalate Esters	940[e]	3[e]	2,944[e]	3.4[e]	--	--
Polychlorinated Biphenyls	(see PCB's)				--	--
Polynuclear Aromatic Hydrocarbons	--	--	300[e]	--	(see individual compounds)	
Pyrene	(see Polynuclear Aromatic Hydrocarbons)				960 ug	11,000 ug
Selenium		5	290[d,i]	71[d,i]	170 ug[l]	11,000 ug
Silver	0.32[f,i,g]	--	1.9[d,i,k]	--	105 ug[p]	65 mg[p]
Sulfide-Hydrogen Sulfide	--	2.0	--	2.0	--	--
Tetrachlorobenzene 1,2,4,5	(see Chlorinated benzenes)				2.3 ug	2.9 ug
Tetrachloroethane 1,1,2,2	--	2,400	9,020	--	0.17 ug[c]	11 ug[c]
	(see Tetrachloroethanes)					
Tetrachloroethanes	9,320[e]	--	--	--	(see individual compounds)	
Tetrachloroethylene	5,280	840	10,200	450	0.80 ug[c]	8.85 ug[c]
Tetrachlorophenol 2,3,5,6	--	--	440	--	--	--
Tetrachlorophenol 2,3,4,6	--	--	--	--	1.0 ug[j]	1.0 ug[j]
Thallium	1,400	40	2,130	--	1.7 ug	6.3 ug
Toluene	--	--	--	--	6.8 mg[l]	200 mg
Toxaphene	0.73	0.0002	0.21	0.0002	0.73 ng[c]	0.75 ng[c]
Tributyltin TBT	0.46	0.063	0.37	0.01	--	--
Trichlorinated Ethanes	18,000[e]	--	--	--	(see individual compounds)	
Trichlorbenzene 1,2,4	(see Chlorinated benzenes)				260 ug[l]	940 ug
Trichloroethane 1,1,1	--	--	31,200	--	l	--
Trichloroethane 1,1,2	--	9,400	--	--	0.60 ug[c]	42 ug[c]
Trichloroethylene	45,000	21,900	2,000	--	2.7 ug[c]	81 ug[c]
Trichlorofluoromethane	(see Halomethanes)				10 mg	860 mg
Trichlorophenol 2,4,5	--	--	--	--	1.0 ug[j]	1.0 ug[j]
Trichlorophenol 2,4,6	--	970	--	--	2.0 ug[j]	2.0 ug[j]
Vinyl Chloride	--	--	--	--	2.0 ug[c]	525 ug[c]
Zinc[i]	36.2[f,d]	36.5[f,d]	90[d]	81[d]	5,000 ug[j]	5,000 ug[j]

Env-W~~s~~***q*** 1703.22 Notes For Table 1703.1. The following shall apply to Table 1703.1:

(a) ***The letter*** "a" shall indicate that the freshwater and saltwater aquatic life criteria for ammonia are shown in Env-W~~s~~***q*** 1703.25 through Env-W~~s~~***q*** 1703.31.

(b) ***The letter*** "b" shall indicate that the criteria refer~~s~~ to the inorganic form only.

(c) ***The letter*** "c" shall indicate that these criteria for the protection of human health are based on carcinogenicity. The human health criteria without this footnote are based on systemic toxicity.

(d) ***The letter*** "d" shall indicate that criteria for these metals are expressed as a function of the water effect ratio (WER) as defined in 40 CFR 131.36(c). The values displayed in Table 1703.1 correspond to a WER of 1.0. To determine metals criteria for different WER's, the procedures described in the EPA publication "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals" (EPA-823-B-94-001) shall be used. ***For copper, the "Streamlined Water-Effect Ratio procedure for Discharges of Copper" (EPA-822-R-01-005) or the Biotic Ligand Model (freshwater only) (EPA-822-R-07-001) may also be used.***

(e) ***The letter*** "e" shall indicate that the following classes of compounds have 2 or more isomers and the sum of the concentrations of each isomer shall meet the appropriate aquatic life criteria:

(1) BHC;

(2) Chlorinated benzenes;

(3) Chlorinated naphthalenes;

(4) Chloroalkyl ethers;

(5) Dichlorobenzenes;

(6) Dichloroethylenes;

(7) Dichloropropanes;

(8) Dichloropropenes;

(9) Dinitrotoluenes;

(10) Haloethers;

(11) Halomethanes;

(12) Nitrophenols;

(13) Nitrosamines;

(14) PCB;

(15) Phthalate esters;

(16) Polynuclear aromatic hydrocarbons;

(17) Tetrachloroethanes; and

(18) Trichlorinated ethanes.

(f) ***The letter*** "f" shall indicate that the freshwater aquatic criteria for these metals are expressed as a function of the total hardness, as mg/l $CaCO_3$ of the surface water. The values displayed in Table 1703.1 correspond to a total hardness of 25 mg/l. To calculate aquatic life criteria for other hardness values between 25 mg/l and 400mg/l, expressed as calcium carbonate, the equations shown in Env-W~~s~~***q*** 1703.24 shall be used. For hardness less than 25 mg/l, a hardness of 25 mg/l shall be used in the equations. For hardness values greater than 400 mg/l, a hardness of 400 mg/l shall be used in the equations.

(g) ***The letter*** "g" shall indicate that, if the fresh or marine chronic criteria for total mercury exceeds 0.77 ug/l more than once in a 3-year period in the ambient water, the edible portion of aquatic species of concern shall be analyzed to determine whether the concentration of methyl mercury exceeds the FDA action level of 1.0 mg/kg.

(h) ***The letter*** "h" shall indicate that the freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH. Values displayed in Table 1703.1 correspond to a pH value of 6.5. For other pH values, the formulas shown in Env-W~~s~~***q*** 1703.32 shall be used.

(i) ***The letter*** "i" shall indicate that the values presented for aquatic life protection are dissolved metals and were based on values shown in Tables 1703.2 ~~and 1703.3~~. To calculate dissolved ***fresh water*** criteria for hardness dependent metals at hardness(s) greater than 25 mg/l, Table 1703.3 shall be used to calculate the total recoverable metal and Table 1703.2 shall be used to convert the total recoverable metal to a dissolved metal.

(j) ***The letter*** "j" shall indicate that these human health criteria prevent taste and odor effects in fish and other aquatic life as prohibited in Env-W~~s~~***q*** 1703.03(c)(3).

(k) ***The letter*** "k" shall indicate that these criteria are based on EPA's 304(a) criteria in the 1980 documents listed below and were derived to be used as instantaneous maximum values, or to be applied after division by 2, to obtain a value comparable to an acute criterion derived using the 1985 Guidelines, when assessment is done using an averaging period:

(1) Aldrin/Dieldrin, document number 440/5-80-019;

(2) Chlordane, document number 440/5-80-027;

(3) DDT, document number 440/5-80-038;

(4) Endosulfan, document number 440/5-80-046;

(5) Endrin, document number 440/5-80-047;

(6) Heptachlor, document number 440/5-80-052;

(7) Hexachlorocyclohexane, document number 440/5-80-054; or

(8) Silver, document number 440/5-80-071.

(l) ***The letter*** "1" shall indicate that a more stringent drinking water maximum contaminant level (MCL) has been issued by EPA ***and the department shall use the MCL if it is more limiting of the two criteria. The MCL for chromium is for total chromium (Cr+6 plus Cr+3)***.

(m) ***The letter*** "m" shall indicate that this criteria is expressed as micrograms of free cyanide per liter.

(n) ***The letter*** "n" shall indicate that this criteria applies to total PCBs or the sum of all of its congener or isomer analyses.

(o) ***The letter*** "o" shall indicate that the freshwater acute criteria for selenium shall be calculated using the values for the fraction f_1 of selenite and f_2 of selenate measured in the receiving water. To calculate the acute criteria, in ug/l, the number 1 shall be divided by the sum of the fractions f_1 divided by 185.9 and f_2 divided by 12.83, as follows:

$$Acute\ \ Criteria\ \ = \frac{1}{\frac{f_1}{185.9} + \frac{f_2}{12.83}}$$

(p) ***The letter*** "p" shall indicate that these human health criteria for silver shall be for the protection of humans from argyria.

Env-W~~s~~***q*** 1703.23 Conversion Factors For Metals.

(a) Dissolved metal shall be determined by multiplying total recoverable metal by the conversion factor listed in Table 1703.2 ***for that metal*** ~~shall be used when converting total recoverable metals to dissolved metals~~ ***shown in equation form as follows:***

Dissolved Metal = Total Recoverable Metal x Conversion Factor

(b) Total recoverable metals shall be determined by dividing dissolved metals by the conversion factor listed. These ***conversion*** factors ***in Table 1703.2*** shall also be used as translators to go from ***the*** dissolved metals criteria ***listed*** in Table 1703.1 to permit limits expressed as total recoverable metals ***by dividing dissolved metal by the conversion factor, shown in equation form as follows:***

Total Recoverable Metal = Dissolved Metal / Conversion Factor

(c) If the hardness of the receiving water is different than 25 mg/l, then Table 1703.2 shall also be used to calculate the total recoverable metal ***for freshwater***.

(~~b~~***d***) Table 1703.2 shall be as follows:

TABLE 1703.2
Factors to Convert Total Recoverable Metals to Dissolved Metals

	FRESHWATER Conversion Factors		**MARINE Conversion Factors**
	Acute	**Chronic**	**Acute & Chronic**

Arsenic	1.0	1.0	1.0
Cadmium	1.136672 - [(Ln Hardness)(0.041838)]	1.101672 - [(Ln Hardness)(0.041838)]	0.994
Chromium (+3)	0.316	0.860	-
Chromium (+6)	0.982	0.962	0.993
Copper	0.960	0.960	0.83
Lead	1.46203 - [(Ln Hardness)(0.145712)]	1.46203 - [(Ln Hardness)(0.145712)]	0.951
Mercury	0.85	0.85	0.85
Nickel	0.998	0.997	0.990
Selenium	~~0.922~~ -	~~0.922~~ -	0.998
Silver	0.85	-	0.85
Zinc	0.978	0.986	0.946

Env-W~~s~~***q*** 1703.24 Freshwater Aquatic Life Criteria For Metals.

(a) To calculate freshwater aquatic life criteria for ***total recoverable*** metals, ~~the values shown in Table 1703.3 shall be used.~~**:** ***the following equations shall be used in conjunction with the coefficients shown in Table 1703.3:***

(1) To calculate the acute criteria, in ug/l, for the metals shown Table 1703.3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_a" multiplied by the natural logarithm of the hardness and to which quotient the value "b_a" shall be added, as follows:

$$\textit{Acute Criteria} = e^x \textit{ where}$$
$$x = (m_a [\ln (\text{hardness})] + b_a)$$

(2) To calculate the chronic criteria, in ug/l, for the metals shown in Table 1703.3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_c" multiplied by the natural logarithm of the hardness and to which quotient the value "b_c" shall be added, as follows:

$$\textit{Chronic Criteria} = e^x \textit{ where}$$
$$x = (m_c [\ln (\text{hardness})] + b_c$$

TABLE 1703.3
Coefficients in Equations used to calculate Total Recoverable Aquatic Life Criteria for Metals

	m_a	**b_a**	**m_c**	**b_c**
Cadmium	~~1.128~~ ***1.0166***	~~-3.6867~~ ***-3.924***	~~0.7852~~ ***0.7409***	~~-2.715~~ ***-4.719***
Copper	0.9422	-1.700	0.8545	-1.702
Chromium+3	0.8190	3.7256	0.8190	.6848
Lead	1.273	-1.460	1.273	-4.705
Nickel	0.8460	2.255	0.8460	0.0584
Silver	1.72	~~-6.52~~ ***-6.59***	-------	-------
Zinc	0.8473	0.884	0.8473	0.884

~~(b) To calculate the acute criteria, in ug/l, for the metals shown Table 1703.3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_a" multiplied by the natural logarithm of the hardness and to which quotient the value "b_a" shall be added, as follows:~~

~~Acute Criteria = e^{x} where~~
~~$x = (m_a [\ln (\text{hardness})] + b_a)$~~

~~(c) To calculate the chronic criteria, in ug/l, for the metals shown in Table 1703.3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_ϵ" multiplied by the natural logarithm of the hardness and to which quotient the value "b_ϵ" shall be added, as follows:~~

~~Chronic Criteria = e^{x} where~~
~~$x = (m_\epsilon [\ln (\text{hardness})] + b_\epsilon$~~

Env-W~~s~~***q*** 1703.25 Freshwater Aquatic Life Criteria For Ammonia.

~~(a) Subject to (b)~~**,** ~~below, Table 1703.4 shall be used to calculate freshwater aquatic life criteria, in milligrams of nitrogen per liter, for ammonia.~~

~~(b) During the period from November 1 through May 31, the values of the freshwater aquatic life chronic criteria for ammonia shall be those shown in Table 1703.4 unless the department, after reviewing all technical and scientifically valid information, determines that:~~

~~(1) No sensitive life stages of any fish species are ordinarily present in numbers affecting the sustainability of populations in the specific surface water during this time period; or~~

~~(2) The specific surface water can fully support beneficial fisheries uses under different cold season ammonia concentration regimes.~~

~~(c) The revised criteria derived in accordance with Env-W~~s***q*** ~~1703.25(b)(1) shall not exceed 3 times the appropriate value shown in Table 1703.4.~~

~~(d) The department shall use the May 1996 guidance "Biological Criteria, Technical Guidance for Streams and Small Rivers" (EPA 822-B-96-001) to determine the adequacy of the instream biological monitoring information.~~

~~(e) If the acute criteria obtained from Table 1703.4 is greater than 0.5 times the species mean acute value for a listed threatened or endangered species, or for a surrogate for such species, then the acute criteria shall be reset equal to 0.5 times the species mean acute value for that species or surrogate.~~

~~(f) If the chronic criteria obtained from Table 1703.4 is greater than the species mean chronic value of a listed threatened or endangered species, or for a surrogate for such species, then the chronic criteria shall be reset to the species mean chronic value for that species or surrogate.~~

~~TABLE 1703.4~~
~~Freshwater Aquatic Life Criteria For Ammonia~~

~~pH~~	~~Acute Criteria (Salmonids present)~~	~~Acute Criteria (Salmonids absent)~~	~~Chronic Criteria~~
~~6.0~~	~~36.7~~	~~55.0~~	~~3.63~~
~~6.1~~	~~36.2~~	~~54.2~~	~~3.61~~
~~6.2~~	~~35.5~~	~~53.2~~	~~3.59~~
~~6.3~~	~~34.7~~	~~52.0~~	~~3.56~~
~~6.4~~	~~33.7~~	~~50.5~~	~~3.52~~
~~6.5~~	~~32.6~~	~~48.8~~	~~3.48~~
~~6.6~~	~~31.3~~	~~46.8~~	~~3.42~~
~~6.7~~	~~29.8~~	~~44.6~~	~~3.36~~
~~6.8~~	~~28.1~~	~~42.0~~	~~3.28~~
~~6.9~~	~~26.2~~	~~39.1~~	~~3.19~~
~~7.0~~	~~24.1~~	~~36.1~~	~~3.08~~
~~7.1~~	~~22.0~~	~~32.8~~	~~2.96~~
~~7.2~~	~~19.7~~	~~29.5~~	~~2.81~~
~~7.3~~	~~17.5~~	~~26.2~~	~~2.65~~
~~7.4~~	~~15.4~~	~~23.0~~	~~2.47~~
~~7.5~~	~~13.3~~	~~19.9~~	~~2.28~~
~~7.6~~	~~11.4~~	~~17.0~~	~~2.07~~

~~7.7~~	~~9.65~~	~~14.4~~	~~1.87~~
~~7.8~~	~~8.11~~	~~12.1~~	~~1.66~~
~~7.9~~	~~6.77~~	~~10.1~~	~~1.46~~
~~8.0~~	~~5.62~~	~~8.40~~	~~1.27~~
~~8.1~~	~~4.64~~	~~6.95~~	~~1.09~~
~~8.2~~	~~3.83~~	~~5.72~~	~~0.935~~
~~8.3~~	~~3.15~~	~~4.71~~	~~0.795~~
~~8.4~~	~~2.59~~	~~3.88~~	~~0.673~~
~~8.5~~	~~2.14~~	~~3.20~~	~~0.568~~
~~8.6~~	~~1.77~~	~~2.65~~	~~0.480~~
~~8.7~~	~~1.47~~	~~2.20~~	~~0.406~~
~~8.8~~	~~1.23~~	~~1.84~~	~~0.345~~
~~8.9~~	~~1.04~~	~~1.56~~	~~0.295~~
~~9.0~~	~~0.885~~	~~1.32~~	~~0.254~~

~~(b) During the period from November 1 through May 31, the values of the freshwater aquatic life chronic criteria for ammonia shall be those shown in Table 1703.4 unless the department, after reviewing all technical and scientifically valid information, determines that:~~

~~(1) No sensitive life stages of any fish species~~

(a) Subject to (b) and (c) below, Table 1703.4A shall be used to calculate freshwater acute aquatic life criteria, in milligrams of nitrogen per liter, for ammonia.

(b) The acute water quality criteria for ammonia in Table 1703.4A where salmonids may be present was calculated by dividing 0.275 by the sum of one plus 10 raised to the power of 7.204 minus the pH, and adding the resulting value to the value found by dividing 39.0 by the sum of one plus 10 raised to the power of the pH minus 7.204, as shown in ~~using~~ the following equation, which equation may also be used to calculate criteria at unlisted pH values:

$$\textit{Acute Criteria (Salmonids Present)} = \{ [0.275/(1+10^{7.204-pH})] + [39.0/(1+10^{pH-7.204})] \}$$

(c) The acute water quality criteria for ammonia in Table 1703.4A where salmonids are absent was calculated by dividing 0.411 by the sum of one plus 10 raised to the power of 7.204 minus the pH, and adding the resulting value to the value found by dividing 58.4 by the sum of one plus 10 raised to the power of the pH minus 7.204, as shown in ~~using~~ the following equation, which equation may also be used to calculate criteria at unlisted pH values:

$$\textit{Acute Criteria (Salmonids Absent)} = \{ [0.411/(1+10^{7.204-pH})] + [58.4/(1+10^{pH-7.204})] \}$$

TABLE 1703.4A
Freshwater Acute Aquatic Life Criteria For Ammonia (milligrams N /liter)

pH	*Acute Criteria (Salmonids present)*	*Acute Criteria (Salmonids absent)*
6.5	***32.6***	***48.8***
6.6	***31.3***	***46.8***
6.7	***29.8***	***44.6***
6.8	***28.1***	***42.0***
6.9	***26.2***	***39.1***
7.0	***24.1***	***36.1***
7.1	***22.0***	***32.8***
7.2	***19.7***	***29.5***

7.3	***17.5***	***26.2***
7.4	***15.4***	***23.0***
7.5	***13.3***	***19.9***
7.6	***11.4***	***17.0***
7.7	***9.65***	***14.4***
7.8	***8.11***	***12.1***
7.9	***6.77***	***10.1***
8.0	***5.62***	***8.40***
8.1	***4.64***	***6.95***
8.2	***3.83***	***5.72***
8.3	***3.15***	***4.71***
8.4	***2.59***	***3.88***
8.5	***2.14***	***3.20***
8.6	***1.77***	***2.65***
8.7	***1.47***	***2.20***
8.8	***1.23***	***1.84***
8.9	***1.04***	***1.56***
9.0	***0.885***	***1.32***

(d) Subject to (e) ~~and~~ through (f h) below, Tables 1703.4B and Table 1703.4C shall be used to calculate freshwater chronic aquatic life criteria, in milligrams of nitrogen per liter, for ammonia. The use of Table 1703.4C requires documentation acceptable to the Department of the absence of fish early life stages.

(e) The chronic water quality criteria for ammonia in Table 1703.4B where early life stages of fish are present was calculated by adding the value found by dividing 0.0577 by the sum of one plus 10 raised to the power of 7.688 minus the pH to the value found by dividing 2.487 by one plus 10 raised to the power of pH minus 7.688, and multiplying the resulting value by the lesser of 2.85 or the value resulting from multiplying 1.45 by 10 raised to the power of 0.028 times 25 minus the temperature, as shown in ~~using~~ the following equation, which may also be used to calculate criteria at unlisted pH and temperature values:

Chronic Criteria (Early life stages of fish Present):

$$Criteria = [0.0577 / (1+10^{7.688-pH}) + 2.487 / (1+10^{pH-7.688})] \times MIN [2.85, 1.45 \times 10^{0.028 \times (25-T)}]$$

Where MIN indicates the lesser of the two values separated by a comma.

(f) The chronic water quality criteria for ammonia in Table 1703.4C where early life stages of fish are absent was calculated by adding the value found by dividing 0.0577 by the sum of one plus 10 raised to the power of 7.688 minus the pH to the value found by dividing 2.487 by one plus 10 raised to the power of pH minus 7.688, and multiplying the resulting value by the value resulting from multiplying 1.45 by 10 raised to the power of 0.028 times 25 minus the greater of temperature or 7, as shown in ~~using~~ the following equation, which may also be used to calculate criteria at unlisted pH and temperature values:

Chronic Criteria (Early life stages of fish Absent):

$$Criteria = [0.0577 / (1+10^{7.688-pH}) + 2.487 / (1+10^{pH-7.688})] \times 1.45 \times 10^{0.028 \times (25-MAX(T, 7))}$$

Where MAX indicates the greater of the two values separated by a comma.

TABLE 1703.4B
Freshwater Chronic Aquatic Life Criteria For Ammonia

Freshwater Chronic Aquatic Life Criteria For Ammonia, milligrams N/liter Early Life Stages of Fish Present										
	Temperature, Degrees C									
pH	***0***	***14***	***16***	***18***	***20***	***22***	***24***	***26***	***28***	***30***
6.5	***6.67***	***6.67***	***6.06***	***5.33***	***4.68***	***4.12***	***3.62***	***3.18***	***2.80***	***2.46***
6.6	***6.57***	***6.57***	***5.97***	***5.25***	***4.61***	***4.05***	***3.56***	***3.13***	***2.75***	***2.42***
6.7	***6.44***	***6.44***	***5.86***	***5.15***	***4.52***	***3.98***	***3.50***	***3.07***	***2.70***	***2.37***
6.8	***6.29***	***6.29***	***5.72***	***5.03***	***4.42***	***3.89***	***3.42***	***3.00***	***2.64***	***2.32***
6.9	***6.12***	***6.12***	***5.56***	***4.89***	***4.30***	***3.78***	***3.32***	***2.92***	***2.57***	***2.25***
7.0	***5.91***	***5.91***	***5.37***	***4.72***	***4.15***	***3.65***	***3.21***	***2.82***	***2.48***	***2.18***
7.1	***5.67***	***5.67***	***5.15***	***4.53***	***3.98***	***3.50***	***3.08***	***2.70***	***2.38***	***2.09***
7.2	***5.39***	***5.39***	***4.90***	***4.31***	***3.78***	***3.33***	***2.92***	***2.57***	***2.26***	***1.99***
7.3	***5.08***	***5.08***	***4.61***	***4.06***	***3.57***	***3.13***	***2.76***	***2.42***	***2.13***	***1.87***
7.4	***4.73***	***4.73***	***4.30***	***3.78***	***3.32***	***2.92***	***2.57***	***2.26***	***1.98***	***1.74***
7.5	***4.36***	***4.36***	***3.97***	***3.49***	***3.06***	***2.69***	***2.37***	***2.08***	***1.83***	***1.61***
7.6	***3.98***	***3.98***	***3.61***	***3.18***	***2.79***	***2.45***	***2.16***	***1.90***	***1.67***	***1.47***
7.7	***3.58***	***3.58***	***3.25***	***2.86***	***2.51***	***2.21***	***1.94***	***1.71***	***1.50***	***1.32***
7.8	***3.18***	***3.18***	***2.89***	***2.54***	***2.23***	***1.96***	***1.73***	***1.52***	***1.33***	***1.17***
7.9	***2.80***	***2.80***	***2.54***	***2.24***	***1.96***	***1.73***	***1.52***	***1.33***	***1.17***	***1.03***
8.0	***2.43***	***2.43***	***2.21***	***1.94***	***1.71***	***1.50***	***1.32***	***1.16***	***1.02***	***0.897***
8.1	***2.10***	***2.10***	***1.91***	***1.68***	***1.47***	***1.29***	***1.14***	***1.00***	***0.879***	***0.773***
8.2	***1.79***	***1.79***	***1.63***	***1.43***	***1.26***	***1.11***	***0.973***	***0.855***	***0.752***	***0.661***
8.3	***1.52***	***1.52***	***1.39***	***1.22***	***1.07***	***0.941***	***0.827***	***0.727***	***0.639***	***0.562***
8.4	***1.29***	***1.29***	***1.17***	***1.03***	***0.906***	***0.796***	***0.700***	***0.615***	***0.541***	***0.475***
8.5	***1.09***	***1.09***	***0.990***	***0.870***	***0.765***	***0.672***	***0.591***	***0.520***	***0.457***	***0.401***
8.6	***0.920***	***0.920***	***0.836***	***0.735***	***0.646***	***0.568***	***0.499***	***0.439***	***0.386***	***0.339***
8.7	***0.778***	***0.778***	***0.707***	***0.622***	***0.547***	***0.480***	***0.422***	***0.371***	***0.326***	***0.287***
8.8	***0.661***	***0.661***	***0.601***	***0.528***	***0.464***	***0.408***	***0.359***	***0.315***	***0.277***	***0.244***
8.9	***0.565***	***0.565***	***0.513***	***0.451***	***0.397***	***0.349***	***0.306***	***0.269***	***0.237***	***0.208***
9.0	***0.486***	***0.486***	***0.442***	***0.389***	***0.342***	***0.300***	***0.264***	***0.232***	***0.204***	***0.179***

TABLE 1703.4C
Freshwater Chronic Aquatic Life Criteria For Ammonia

Freshwater Chronic Aquatic Life Criteria For Ammonia, milligrams N/liter Early Life Stages of Fish Absent										
	Temperature, Degrees C									
pH	***0-7***	***8***	***9***	***10***	***11***	***12***	***13***	***14***	***15****	***16****
6.5	***10.8***	***10.1***	***9.51***	***8.92***	***8.36***	***7.84***	***7.35***	***6.89***	***6.46***	***6.06***
6.6	***10.7***	***9.99***	***9.37***	***8.79***	***8.24***	***7.72***	***7.24***	***6.79***	***6.36***	***5.97***
6.7	***10.5***	***9.81***	***9.20***	***8.62***	***8.08***	***7.58***	***7.11***	***6.66***	***6.25***	***5.86***
6.8	***10.2***	***9.58***	***8.98***	***8.42***	***7.90***	***7.40***	***6.94***	***6.51***	***6.10***	***5.72***
6.9	***9.93***	***9.31***	***8.73***	***8.19***	***7.68***	***7.20***	***6.75***	***6.33***	***5.93***	***5.56***
7.0	***9.60***	***9.00***	***8.43***	***7.91***	***7.41***	***6.95***	***6.52***	***6.11***	***5.73***	***5.37***
7.1	***9.20***	***8.63***	***8.09***	***7.58***	***7.11***	***6.67***	***6.25***	***5.86***	***5.49***	***5.15***

7.2	***8.75***	***8.20***	***7.69***	***7.21***	***6.76***	***6.34***	***5.94***	***5.57***	***5.22***	***4.90***
7.3	***8.24***	***7.73***	***7.25***	***6.79***	***6.37***	***5.97***	***5.60***	***5.25***	***4.92***	***4.61***
7.4	***7.69***	***7.21***	***6.76***	***6.33***	***5.94***	***5.57***	***5.22***	***4.89***	***4.59***	***4.30***
7.5	***7.09***	***6.64***	***6.23***	***5.84***	***5.48***	***5.13***	***4.81***	***4.51***	***4.23***	***3.97***
7.6	***6.46***	***6.05***	***5.67***	***5.32***	***4.99***	***4.68***	***4.38***	***4.11***	***3.85***	***3.61***
7.7	***5.81***	***5.45***	***5.11***	***4.79***	***4.49***	***4.21***	***3.95***	***3.70***	***3.47***	***3.25***
7.8	***5.17***	***4.84***	***4.54***	***4.26***	***3.99***	***3.74***	***3.51***	***3.29***	***3.09***	***2.89***
7.9	***4.54***	***4.26***	***3.99***	***3.74***	***3.51***	***3.29***	***3.09***	***2.89***	***2.71***	***2.54***
8.0	***3.95***	***3.70***	***3.47***	***3.26***	***3.05***	***2.86***	***2.68***	***2.52***	***2.36***	***2.21***
8.1	***3.41***	***3.19***	***2.99***	***2.81***	***2.63***	***2.47***	***2.31***	***2.17***	***2.03***	***1.91***
8.2	***2.91***	***2.73***	***2.56***	***2.40***	***2.25***	***2.11***	***1.98***	***1.85***	***1.74***	***1.63***
8.3	***2.47***	***2.32***	***2.18***	***2.04***	***1.91***	***1.79***	***1.68***	***1.58***	***1.48***	***1.39***
8.4	***2.09***	***1.96***	***1.84***	***1.73***	***1.62***	***1.52***	***1.42***	***1.33***	***1.25***	***1.17***
8.5	***1.77***	***1.66***	***1.55***	***1.46***	***1.37***	***1.28***	***1.20***	***1.13***	***1.06***	***0.990***
8.6	***1.49***	***1.40***	***1.31***	***1.23***	***1.15***	***1.08***	***1.01***	***0.951***	***0.892***	***0.836***
8.7	***1.26***	***1.18***	***1.11***	***1.04***	***0.976***	***0.915***	***0.858***	***0.805***	***0.754***	***0.707***
8.8	***1.07***	***1.01***	***0.944***	***0.885***	***0.829***	***0.778***	***0.729***	***0.684***	***0.641***	***0.601***
8.9	***0.917***	***0.860***	***0.806***	***0.756***	***0.709***	***0.664***	***0.623***	***0.584***	***0.548***	***0.513***
9.0	***0.790***	***0.740***	***0.694***	***0.651***	***0.610***	***0.572***	***0.536***	***0.503***	***0.471***	***0.442***

(g) The asterisk, *, shall indicate that a~~A~~t 15 Degrees C and above the criteria for early life stages of fish absent are the same as the criteria for early life stages of fish present.

(h) In addition to (e) and (f), above, the highest 4-day average within a 30-day period shall not exceed 2.5 times the chronic criteria.

Env-W~~s~~***q*** 1703.26 Saltwater Acute Aquatic Life Criteria for Ammonia at a Salinity of 10 g/kg. To calculate aquatic life acute saltwater criteria for ammonia, in mg of NH_3 per liter, for a salinity of 10 g/kg, the values shown in Table 1703.5 shall be used.

TABLE 1703.5
Acute Saltwater Aquatic Life Criteria (Salinity of 10 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	270	191	131	92	62	44	29	21
7.2	175	121	83	58	40	27	19	13
7.4	110	77	52	35	25	17	12	8.3
7.6	69	48	33	23	16	11	7.7	5.6
7.8	44	31	21	15	10	7.1	5.0	3.5
8.0	27	19	13	9.4	6.4	4.6	3.1	2.3
8.2	18	12	8.5	5.8	4.2	2.9	2.1	1.5
8.4	11	7.9	5.4	3.7	2.7	1.9	1.4	1.0
8.6	7.3	5.0	3.5	2.5	1.8	1.3	0.98	0.75
8.8	4.6	3.3	2.3	1.7	1.2	0.92	0.71	0.56
9.0	2.9	2.1	1.5	1.1	0.85	0.67	0.52	0.44

Env-W~~s~~***q*** 1703.27 Saltwater Acute Aquatic Life Criteria for Ammonia at a Salinity of 20 g/kg. To calculate aquatic life acute saltwater criteria for ammonia, in mg of NH_3 per liter, for a salinity of 20 g/kg, the values shown in Table 1703.6 shall be used.

TABLE 1703.6
Acute Saltwater Aquatic Life Criteria (Salinity of 20 g/kg)

pH	TEMPERATURE (°C)							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	291	200	137	96	64	44	31	21
7.2	183	125	87	60	42	29	20	14
7.4	116	79	54	37	27	18	12	8.7
7.6	73	50	35	23	17	11	7.9	5.6
7.8	46	31	23	15	11	7.5	5.2	3.5
8.0	29	20	14	9.8	6.7	4.8	3.3	2.3
8.2	19	13	8.9	6.2	4.4	3.1	2.1	1.6
8.4	12	8.1	5.6	4.0	2.9	2.0	1.5	1.1
8.6	7.5	5.2	3.7	2.7	1.9	1.4	1.0	0.77
8.8	4.8	3.3	2.5	1.7	1.3	0.94	0.73	0.56
9.0	3.1	2.3	1.6	1.2	0.87	0.69	0.54	0.44

Env-W~~s~~***q*** 1703.28 Saltwater Acute Aquatic Life Criteria for Ammonia at a Salinity of 30 g/kg. To calculate aquatic life acute saltwater criteria for ammonia, in mg of NH_3 per liter, for a salinity of 30 g/kg, the values shown in Table 1703.7 shall be used.

TABLE 1703.7
Acute Saltwater Aquatic Life Criteria (Salinity of 30 g/kg)

pH	TEMPERATURE (°C)							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	312	208	148	102	71	48	33	23
7.2	196	135	94	64	44	31	21	15
7.4	125	85	58	40	27	19	13	9.4
7.6	79	54	37	25	21	12	8.5	6.0
7.8	50	33	23	16	11	7.9	5.4	3.7
8.0	31	21	15	10	7.3	5.0	3.5	2.5
8.2	20	14	9.6	6.7	4.6	3.3	2.3	1.7
8.4	12.7	8.7	6.0	4.2	2.9	2.1	1.6	1.1
8.6	8.1	5.6	4.0	2.7	2.0	1.4	1.1	0.81
8.8	5.2	3.5	2.5	1.8	1.3	1.0	0.75	0.58
9.0	3.3	2.3	1.7	1.2	0.94	0.71	0.56	0.46

Env-W~~s~~***q*** 1703.29 Saltwater Chronic Aquatic Life Criteria for Ammonia at a Salinity of 10 g/kg. To calculate aquatic life chronic saltwater criteria, in mg of NH_3 per liter, for ammonia, for a salinity of 10 g/kg, the values shown in Tables 1703.8 shall be used.

TABLE 17***0***~~30~~.8
Chronic Saltwater Aquatic Life Criteria (Salinity of 10 g/kg)

pH	TEMPERATURE (°C)							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	41	29	20	14	9.4	6.6	4.4	3.1
7.2	26	18	12	8.7	5.9	4.1	2.8	2.0

7.4	17	12	7.8	5.3	3.7	2.6	1.8	1.2
7.6	10	7.2	5.0	3.4	2.4	1.7	1.2	0.84
7.8	6.6	4.7	3.1	2.2	1.5	1.1	0.75	0.53
8.0	4.1	2.9	2.0	1.40	0.97	0.69	0.47	0.34
8.2	2.7	1.8	1.3	0.87	0.62	0.44	0.31	0.23
8.4	1.7	1.2	0.81	0.56	0.41	0.29	0.21	0.16
8.6	1.1	0.75	0.53	0.37	0.27	0.20	0.15	0.11
8.8	0.69	0.50	0.34	0.25	0.18	0.14	0.11	0.08
9.0	0.44	0.31	0.23	0.17	0.13	0.10	0.08	0.07

Env-W~~s~~***q*** 1703.30 Saltwater Chronic Aquatic Life Criteria for Ammonia at a Salinity of 20 g/kg. To calculate aquatic life chronic saltwater criteria, in mg of NH_3 per liter, for ammonia, for a salinity of 20 g/kg, the values shown in Table 1703.9 shall be used.

TABLE 1703.9
Chronic Saltwater Aquatic Life Criteria (Salinity of 20 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	44	30	21	14	9.7	6.6	4.7	3.1
7.2	27	19	13	9.0	6.2	4.4	3.0	2.1
7.4	18	12	8.1	5.6	4.1	2.7	1.9	1.3
7.6	11	7.5	5.3	3.4	2.5	1.7	1.2	0.84
7.8	6.9	4.7	3.4	2.3	1.6	1.1	0.78	0.53
8.0	4.4	3.0	2.1	1.5	1.0	0.72	0.50	0.34
8.2	2.8	1.9	1.3	.94	.66	.47	.31	.24
8.4	1.8	1.2	.84	.59	.44	.30	.22	.16
8.6	1.1	.78	.56	.41	.28	.20	.15	.12
8.8	.72	.50	.37	.26	.19	.14	.11	.08
9.0	.47	.34	.24	.18	.13	.10	.08	.07

Env-W~~s~~***q*** 1703.31 Saltwater Chronic Aquatic Life Criteria for Ammonia at a Salinity of 30g/kg. To calculate aquatic life chronic saltwater criteria, in mg of NH_3 per liter, for ammonia, for a salinity of 30 g/kg, the values shown in Table 1703.10 shall be used.

TABLE 1703.10
Chronic Saltwater Aquatic Life Criteria (Salinity of 30 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	47	31	22	15	11	7.2	5.0	3.4
7.2	29	20	14	9.7	6.6	4.7	3.1	2.2
7.4	19	13	8.7	5.9	4.1	2.9	2.0	1.4
7.6	12	8.1	5.6	3.7	3.1	1.8	1.3	0.90
7.8	7.5	5.0	3.4	2.4	1.7	1.2	0.81	0.56
8.0	4.7	3.1	2.2	1.6	1.1	0.75	0.53	0.37
8.2	3.0	2.1	1.4	1.0	0.69	0.50	0.34	0.25
8.4	1.9	1.3	0.90	0.62	0.44	0.31	0.23	0.17
8.6	1.2	0.84	0.59	0.41	0.30	0.22	0.16	0.12
8.8	0.78	0.53	0.37	0.27	0.20	0.15	0.11	0.09

9.0	0.50	0.34	0.26	0.19	0.14	0.11	0.08	0.07

Env-W~~s~~***q*** 1703.32 Aquatic Life Criteria for Pentachlorophenol.

(a) To calculate the freshwater aquatic life acute criteria, in ug/l, for pentachlorophenol, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression 1.005 multiplied by the pH and to which quotient the value of 4.869 shall be subtracted, as follows:

$$\text{Acute Criteria} = e^{x} \text{ where}$$
$$x = [\ 1.005\ (\text{pH}) - 4.869\ ]$$

(b) To calculate the freshwater aquatic life chronic criteria, in ug/l, for pentachlorophenol, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression 1.005 multiplied by the pH and to which quotient the value of 5.134 shall be subtracted, as follows:

$$\text{Chronic Criteria} = e^{x} \text{ where}$$
$$x = [\ 1.005\ (\text{pH}) - 5.134\ ]$$

PART Env-W~~s~~***q*** 1704 ALTERNATIVE SITE SPECIFIC CRITERIA

Env-W~~s~~***q*** 1704.01 Purpose. The purpose of this part is to develop a procedure for determining alternative site specific criteria in the following cases:

(a) For toxic substances not listed in Env-W~~s~~***q*** 1703.21 through Env-W~~s~~***q*** 1703.32;

(b) Where site specific information is available which substantiates the use of different criteria; or

(c) Where new information, not considered in the development of the criteria, is available.

Env-W~~s~~***q*** 1704.02 Procedures.

(a) The procedure for determining alternative site specific criteria for the protection of human health shall be in accordance with EPA's draft ***"***Guidance on Assessment and Control of Bioconcentratable Contaminants in Surface Waters***"*** dated March 1991, and EPA's "~~Draft Revisions to the~~ Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health," ~~63 FR pages 43755 to 43828, dated August 14, 1998~~ ***EPA 822-B-00-004, dated October 2000.***

(b) The procedure for determining alternative site specific criteria for protection of aquatic life shall be as published in EPA's ***"***Interim Guidance on Determination and Use of Water-Effect Ratios for Metals***"*** ~~dated February, 1994 and published in EPA's Water Quality Standards Handbook: Second Edition.~~ ***(EPA-823-B-94-001). For copper, the "Streamlined Water-Effect Ratio procedure for Discharges of Copper", EPA-822-R-01-005, or the Biotic Ligand Model (freshwater only), EPA-822-R-07-001, may also be used.***

Env-W~~s~~***q*** 1704.03 Modifications. If, based on the scientifically valid documentation presented by the applicant, the department determines that the proposed site specific criteria will protect the existing and designated uses of the waterbody, then the values obtained by those procedures for the protection of human health or aquatic life shall be formally incorporated into the state's water quality standards in subsequent amendments to these rules.

PART Env-W~~s~~***q*** 1705 FLOW STANDARDS

Env-W~~s~~***q*** 1705.01 Assimilative Capacity. Except for combined sewer overflows where 99 percent of the assimilative capacity shall be used to determine compliance, not less than 10 percent of the assimilative capacity of the surface water shall be held in reserve to provide for future needs.

Env-W~~s~~***q*** 1705.02 Low Flow Conditions.

(a) The flow used to calculate permit limits shall be as specified in (b) through (d)***,*** below.

(b) For rivers and streams, the long-term harmonic mean flow, which is ***the number of*** daily flow measurements divided by the sum of the reciprocals of the daily flows, shall be used to develop permit limits for all human health criteria for carcinogens.

(c) For tidal waters, the low flow condition shall be equivalent to the conditions that result in a dilution that is exceeded 99% of the time.

(d) For rivers and streams, the 7Q10 flow shall be used to apply aquatic life criteria and human health criteria for non-carcinogens.

PART Env-W~~s~~***q*** 1706 SAMPLING AND ANALYSIS

Env-W~~s~~***q*** 1706.01 Procedure. All procedures used for the purpose of collecting, preserving and analyzing samples shall be in conformance with 40 CFR Part 136 for wastewater and 40 CFR Part 141 for drinking water unless alternative procedures are specified in the surface water discharge permit.

PART Env-W~~s~~***q*** 1707 MIXING ZONES

Env-W~~s~~***q*** 1707.01 Designation.

(a) Mixing zones shall be prohibited in Class A waters.

(b) For Class B waters, the department shall designate a limited area or volume of the surface water as a mixing zone if the applicant provides sufficient scientifically valid documentation to allow the department to independently determine that all criteria in Env-W~~s~~***q*** 1707.02 have been met.

Env-W~~s~~***q*** 1707.02 Minimum Criteria. Mixing zones shall be subject to site specific criteria that, as a minimum:

(a) Meet the criteria in Env-W~~s~~***q*** 1703.03(c)(1)~~.~~***;***

(b) Do not interfere with biological communities or populations of indigenous species;

(c) Do not result in the accumulation of pollutants in the sediments or biota;

(d) Allow a zone of passage for swimming and drifting organisms;

(e) Do not interfere with existing and designated uses of the surface water;

(f) Do not impinge upon spawning grounds and/or nursery areas of any indigenous aquatic

species;

(g) Do not result in the mortality of any plants, animals, humans, or aquatic life within the mixing zone;

(h) Do not exceed the chronic toxicity value of 1.0 TUc at the mixing zone boundary; and

(i) Do not result in an overlap with another mixing zone.

Env-W~~s~~***q*** 1707.03 Technical Standards. Mixing zones shall be established in accordance with the procedures delineated in the "Technical Support Document for Water Quality-based Toxics Control" EPA/505/2-90-001, ~~published by the EPA on~~ ***dated*** March 1991.

PART Env-W~~s~~***q*** 1708 ANTIDEGRADATION

Env-W~~s~~***q*** 1708.01 Purpose. The purpose of these antidegradation provisions is to ensure that the following provisions of 40 CFR 131.12 are met:

(a) Existing ~~instream water~~ uses and the level of water quality necessary to protect the existing uses shall be maintained and protected;

(b) For significant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the department finds, after full satisfaction of the intergovernmental coordination and public participation provisions that, in accordance with Env-W~~s~~***q*** 1708.10, allowing lower water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing such degradation or lower water quality, the department shall assure water quality adequate to fully protect existing uses. Further, the department shall assure that the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented;

(c) For insignificant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected. In allowing such degradation or lower water quality, the department shall assure water quality adequate to protect existing uses fully. Further, the department shall assure that the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented;

(d) Where high quality surface waters constitute an outstanding resource waters (ORW), that water quality shall be maintained and protected; and

(e) In those cases where a potential water quality impairment is associated with a thermal discharge, the antidegradation provisions shall ensure that the requirements of section 316 of the Clean Water Act are met.~~.~~

Env-W~~s~~***q*** 1708.02 Applicability. Antidegradation shall apply to:

(a) Any proposed new or increased activity, including point source and nonpoint source discharges of pollutants, that would lower water quality or affect the existing or designated uses;

(b) A***ny*** proposed increase in loadings to a waterbody when the proposal is associated with existing activities;

(c) An***y*** increase in flow alteration over an existing alteration; and

(d) ~~All~~ ***Any*** hydrologic modifications, such as dam construction and water withdrawals.

Env-W~~s~~***q*** 1708.03 Submittal of Data. The applicant shall provide all information necessary to:

(a) Identify all existing uses, including:

(1) Freshwater, estuarine, and marine aquatic life present in the affected surface waters;

(2) Other wildlife that use or are dependent on the affected surface waters;

(3) Presence of water quality and physical habitat that support, or would support, aquatic life or other animal or plant life;

(4) Presence of indigenous species and communities;

(5) Presence of a specialized use of the waterbody, such as a spawning area or as a habitat for a federally or state listed threatened or endangered species;

(6) Use of the surface waters for recreation in or on the water, such as fishing, swimming, and boating, or use of the surface waters for commercial activity; and

(7) Whether or not current ~~instream~~ conditions or uses of the surface waters conflict with achieving and maintaining goal uses of the CWA at Section 101(a)(2) and the primary CWA objective to restore and maintain the chemical, physical, and biological integrity of the nation's surface waters;

(b) Determine the level of water quality necessary to maintain and protect those uses;

(c) Evaluate the potential impacts on existing uses due to the proposed discharge or activity by itself, and in combination with other discharges or activities presently occurring;

(d) Ensure that existing ~~instream~~ uses and the level of water quality necessary to protect those uses shall be maintained and protected.

(e) Evaluate the magnitude, duration, and upstream and downstream extent of any lowering of high quality water due to the proposed discharge or activity by itself, and in combination with other discharges or activities presently occurring;

(f) Evaluate other factors as necessary to determine whether the proposed activity would cause significant or insignificant degradation, in accordance with Env-W~~s~~***q*** 1708.09;

(g) If the discharge or activity is determined by the department to be significant, in accordance with Env-W~~s~~***q*** 1708.08 and Env-W~~s~~***q*** 1708.09, determine if a proposed lowering of water quality is necessary to achieve important economic or social development in accordance with Env-W~~s~~***q*** 1708.10; and

(h) Ensure that all water quality criteria applicable to the waterbody in question shall not be violated.

Env-W~~s~~***q*** 1708.04 Protection of Existing Uses.

(a) This section shall apply to all surface waters.

(b) A proposed discharge or activity shall not eliminate any existing uses or the water quality needed to maintain and protect those uses.

(c) Using the information provided at ***Env-Wq*** 1708.03, the department shall determine the existing uses for the waters in question.

Env-W~~s~~***q*** 1708.05 Protection of Water Quality in ORW.

(a) Surface waters of national forests and surface waters designated as natural under RSA 483:7-a, I**,** shall be considered outstanding resource waters (ORW).

(b) Water quality shall be maintained and protected in surface waters that constitute ORW, except that some limited point and nonpoint source discharges may be allowed providing that they are of limited activity which results in no more than temporary and short-term changes in water quality. "Temporary and short term" means that degradation is limited to the shortest possible time. Such activities shall not permanently degrade water quality or result at any time in water quality lower than that necessary to protect the existing and designated uses in the ORW. Such temporary and short term degradation shall only be allowed after all practical means of minimizing such degradation are implemented.

Env-W~~s~~***q*** 1708.06 Protection of Class A Waters.

(a) In accordance with RSA 485-A:8, I, discharges of sewage or waste to Class A waters shall be prohibited.

(b) Proposed new or increased activities that the department determines do not involve the discharge of sewage or waste shall be reviewed in accordance with Env-W~~s~~***q*** 1708.01 through Env-W~~s~~***q*** 1708.12.

Env-W~~s~~***q*** 1708.07 Protection of Water Quality in High Quality Waters.

(a) Subject to (b)**,** below, high quality waters shall be maintained and protected, except that insignificant changes in water quality, as determined by the department in accordance with Env-W~~s~~***q*** 1708.09, shall be allowed.

(b) Degradation of significant increments of water quality, as determined in accordance with Env-W~~s~~***q*** 1708.09, in high quality waters shall be allowed only if it can be demonstrated to the department, in accordance with Env-W~~s~~***q*** 1708.10, that allowing the water quality degradation is necessary to accommodate important economic or social development in the area in which the receiving waters are located.

(c) Economic/social benefits demonstration and alternatives analysis shall not be required for authorization of an insignificant lowering of water quality~~;~~**.** However, in allowing a lowering of water quality, significant or insignificant, all reasonable measures to minimize degradation shall be ~~utilized~~ ***used***.

(d) If the waterbody is Class A Water, the requirements of Env-W~~s~~***q*** 1708.06 shall also apply.

Env-W~~s~~***q*** 1708.08 Assessing Waterbodies.

(a) The applicant shall characterize the existing ~~instream~~ water quality and determine if there is remaining assimilative capacity for each parameter in question.

(b) Existing ~~instream~~ water quality shall be calculated in accordance with Env-W~~s~~***q*** 1705.02. Existing water quality shall be established based on point sources discharging at their allowed loadings and the highest loadings anticipated from nonpoint sources.

(c) Where flow alteration is involved, establishment of existing conditions shall be based on the existing maximum allowed water withdrawals or impoundment, diversion, or fluctuation of stream flow, as appropriate.

(d) Remaining assimilative capacity shall be evaluated by comparing existing ~~instream~~ water quality, as specified in (b) and (c)***,*** above, to the state's ~~instream~~ water quality criteria.

(e) If the type and frequency of the proposed discharge or activity causes the waterbody to be impacted at flows other than those listed in Env-W~~s~~***q*** 1705.02, the department shall require the applicant to evaluate the impact of the proposed discharge at those other flows.

(f) Subject to (h)***,*** below, if the department determines, based on the information submitted, that there is no remaining assimilative capacity, no further degradation with regard to that parameter shall be allowed.

(g) Subject to (h)***,*** below, if the department determines, based on the information submitted, that there is some remaining assimilative capacity, then the department shall proceed in accord with Env-W~~s~~***q*** 1708.09.

(h) The above determinations shall take into account Env-W~~s~~***q*** 1705.01 which requires the department to reserve no less than 10% of a surface water's assimilative capacity.

Env-W~~s~~***q*** 1708.09 Significant or Insignificant Determination.

(a) Any discharge or activity that is projected to ~~utilize~~ ***use*** 20% or more of the remaining assimilative capacity for a water quality parameter, in terms of either concentration or mass of pollutants, or volume or flow rate for water quantity, shall be considered a significant lowering of water quality. ~~Any person who proposes~~ ***The department shall not approve*** such a discharge or activity ~~shall be required to~~ ***unless the applicant*** demonstrate***s*** that the proposed lowering of water quality is necessary to achieve important economic or social development, in accordance with Env-W~~s~~***q*** 1708.10, in the area where the waterbody is located.

(b) Subject to (d)***,*** below, those activities ~~which~~ ***that*** cause an insignificant lowering of water quality shall not be required to demonstrate that they are necessary to provide important economic or social development.

(c) Activities under (b)***,*** above shall include, but not be limited to:

(1) Short term or intermittent discharges such as hydrostatic testing of pipelines, fire pump test water, and uncontaminated stormwater discharges or site clean-up activities;

(2) Permanent discharges such as uncontaminated noncontact ***or uncontaminated geothermal*** cooling water, uncontaminated groundwater seepage, or unchlorinated or dechlorinated swimming pool water;

(3) Facilities whose nonpoint source runoff is controlled through the use of best management practices; and

(4) Any discharge or activity that is projected to use less than 20% of the remaining assimilative capacity for a water quality parameter, in terms of either concentration or mass for pollutants.

(d) If the department determines that, because of the following factors, the effect of a discharge results in a greater impact to the water quality than that normally found in insignificant discharges, it shall determine that the proposed activity or discharge is significant, regardless of the proposed consumption of the remaining assimilative capacity, and require the applicant to demonstrate, in accordance with Env-W~~s~~***q*** 1708.10, that a lowering of water quality is necessary to achieve an important economic or social development:

(1) The magnitude, duration, and ~~spacial~~ ***spatial*** extent of the proposed change in water quality;

(2) The cumulative lowering of water quality over time resulting from the proposed activity in combination with previously approved activities;

(3) The possible additive or synergistic effects of the activity in combination with existing activities;

(4) The magnitude of the mass load independent of the total assimilative capacity or change in receiving water pollutant concentration;

(5) The toxic or bioaccumulative characteristics of the pollutant(s) in question;

(6) The potential to stress sensitive biological resources such as indigenous species, rare species, and threatened or endangered species and their habitat;

(7) The potential to stress sensitive recreational uses or water supply uses; or

(8) The quality and value of the resource.

Env-Ws***q*** 1708.10 ~~Demonstration of Economic or Social Development.~~ ***Alternatives Analysis; Determination of Net Economic or Social Benefits.***

~~(a) Unless the department determines from documentation provided by the applicant, or other available information, that a proposed new or increased discharge or other activity would result in an insignificant impact to the existing water quality of a high quality waterbody, the department shall require that the applicant provide documentation, in accordance with the procedures delineated in "Interim Economic Guidance for Water Quality Standards" EPA-823-B-95-002, published by the EPA on March 1995, that the:~~

~~(1) Proposed project or activity will provide an important economic or social development in the area where the waterbody is located; and~~

~~(2) Lowering of water quality is necessary to accommodate the development.~~

~~(b) Where the department finds, based on the information provided in Env-Ws 1708.10(a) that a proposed project would provide an important economic or social development, it shall require that an alternatives analysis be developed, in accordance with Env-Ws 1708.10(c), to determine if it is possible to realize those benefits either without lowering water quality or with a reduced degree of degradation.~~

~~(c) To determine if the lowering of water quality is necessary to accommodate an important economic or social benefit, the department shall require the applicant to evaluate the following alternatives and submit technically and scientifically valid information describing the benefits and impacts of each alternative on water quality and the degree to which the economic or social benefits could be realized if the alternatives were implemented:~~

~~(1) Alternative methods of production or operation;~~

~~(2) Improved process controls;~~

~~(3) Water conservation practices;~~

~~(4) Wastewater minimization technologies;~~

~~(5) Non-discharging alternatives;~~

~~(6) Improved wastewater treatment facility operation;~~

~~(7) Alternative methods of treatment, including advanced treatment beyond applicable technology requirements of the Clean Water Act; and~~

~~(8) Alternative sites, and associated water quality impacts at those sites.~~

~~(d) The department shall make a preliminary determination, based on the information provided in Env-Ws 1708.10(a) and (c), to approve or deny the applicant's request.~~

~~(e) If the department approves the applicant's request, the department shall provide the opportunity for public comment on its preliminary decision in accordance with Env-Ws 1708.11.~~

(a) For purposes of this section, the following definitions shall apply:

(1) "Activity" means any of the activities listed in Env-Wq 1708.02 as being subject to this part, including all associated construction;

(2) "Area in which the water body is located" means the directly affected municipality(ies) and, if necessary to quantify the net social and economic benefits of the activity, one or more of the municipalities that abut the directly affected municipality(ies), as determined by the applicant in consultation with the department;

(3) "Directly affected municipality(ies)" means the municipality or municipalities in which the water body that will be impacted by the activity is located; and

(4) "High value resource" means a natural or developed resource that is of particular value to the nation, region, state, or area in which the water body is located, including but not limited to

state or federally-listed threatened or endangered species, state or federal parks, public freshwater or saltwater beaches, and lands that are subject to conservation easements.

(b) For any activity that is determined to result in a significant impact to the existing water quality pursuant to Env-Wq 1708.09, the applicant shall provide documentation in accordance with (c) through (f), below, to demonstrate that:

(1) Lowering the water quality is necessary to accommodate the activity;

(2) The activity will provide net economic or social benefits in the area in which the water body is located; and

(3) The net social and economic benefits of constructing and operating or otherwise engaging in the activity outweigh the environmental impact that could be caused by the lower water quality.

(c) To determine whether the criteria specified in (b)(1)-(3), above, have been met, the applicant shall complete an alternatives analysis as described in (d), below, and submit the analysis and a request for approval of the preferred alternative to the department together with technically and scientifically valid supporting information.

(d) The alternatives analysis required by (c), above, shall describe the net social and economic benefits, as described in (e), below, and the water quality impacts, as described in (f), below, of constructing and operating or otherwise engaging in the activity and all practicable alternatives, including but not limited to the following:

(1) Alternative methods of production or operation;

(2) Improved process controls;

(3) Water conservation practices;

(4) Wastewater minimization technologies;

(5) Non-discharging alternatives;

(6) Improved wastewater treatment facility operation;

(7) Alternative methods of treatment, including advanced treatment beyond applicable

technology requirements of the Clean Water Act;

(8) Alternative sites, and associated water quality impacts at those sites; and

(9) For activities that involve alteration of terrain, alternative site design that incorporates low impact development elements, including but not limited to creating less impermeable area or infiltrating or reusing stormwater.

(e) To determine if the activity will provide net social and economic benefits in the area in which the water body is located, the applicant shall submit information on, and the department shall evaluate, each of the following:

(1) Whether the activity is consistent with municipal and regional master plans and economic development strategies; and

(2) An explanation of the effect that constructing and operating or otherwise engaging in the activity will have, or an explanation of why there will be no effect, on the following factors:

a. Public and social services;

b. Public health and safety;

c. Employment;

d. Tourism and recreation; and

e. Other social or economic factors that are specific to the area in which the water body is located.

(f) To determine the environmental impacts of lower water quality, the applicant shall submit information on, and the department shall evaluate, each of the following:

(1) Relative to designated uses, the sensitivity of existing and designated uses to the effects of constructing and operating or otherwise engaging in of the activity;

(2) Relative to pollutants, whether any pollutants are expected to be discharged as a result of constructing and operating or otherwise engaging in the activity and, if so, the nature of the pollutants and the anticipated fate and transport of the pollutants in the water body;

(3) Relative to water quality, whether water quality is expected to change as a result of constructing and operating or otherwise engaging in activity, and if so, the estimated degree of change in water quality;

(4) Relative to high value resources, whether any high value resources are present that would be affected by constructing and operating or otherwise engaging in the activity, and if so, the degree to which such resources are expected to be affected;

(5) Relative to flow characteristics or hydrologic modifications, whether any alterations to existing flows or other hydrologic modifications are expected as a result of constructing and operating or otherwise engaging in the proposed activity, and if so, the impacts of such alterations or modifications;

(6) Relative to water treatment technology, whether the activity incorporates any such technology other than passive stormwater treatment best management practices and, if so, the reliability of the treatment technology proposed, and the risk management plan for non-standard situations such as accidents, upsets, or failures; and

(7) Relative to any other factors that are specific to the affected water body or the area in which the water body is located, a description of the factor and an explanation of the effect of constructing and operating or otherwise engaging in the proposed activity on that factor.

(g) After reviewing the information submitted pursuant to (c) through (f), above, the department shall make a preliminary determination to:

(1) Approve the request, if it determines that the criteria specified in (b)(1)-(3), above, have been met; or

(2) Deny the request, if it determines that the criteria specified in (b)(1)-(3), above, have not been met.

(h) If the department's preliminary determination is to approve the applicant's request, the department shall provide the opportunity for public comment on its preliminary decision in accordance with Env-Wq 1708.11.

Env-Ws***q*** 1708.11 Public Participation and Intergovernmental Coordination.

(a) The department shall provide the opportunity for public comment on preliminary decisions to allow any lowering of water quality.

(b) The department shall issue a written notice to the public, the municipality in which the activity is located or proposed to be located and all potentially affected municipalities. The notice shall invite written comments to be submitted to the department and shall provide an opportunity to request a public hearing. For activities related to state surface water discharge permits, this public notice shall be a part of the normal public participation procedures associated with the issuance of the permit.

(c) The notice shall be published in a newspaper of general circulation in the municipality where the proposed activity will occur and shall include the following information:

(1) A description of the proposed activity;

(2) A description of the surface waters involved and their use classification;

(3) A statement of the department's antidegradation provisions;

(4) A determination that existing uses and necessary water quality will be maintained and protected;

(5) A summary of the expected impacts on high quality waters;

(6) A determination that where a lowering of water quality is allowed, all applicable water quality criteria shall be met, designated uses protected, and any higher water quality achievable by the most stringent applicable technology-based requirements shall be maintained;

(7) A discussion of any other information that is relevant to how the activity complies or does not comply with these provisions;

(8) The summary of the important economic or social development, if applicable;

(9) A summary of the alternatives analysis and a finding that the lowering of water quality is necessary; and

(10) The name, address, and telephone number of the person in the department where all written comments or requests for public hearing can be sent.

(d) To fulfill intergovernmental coordination, the department shall submit a copy of the public

notice to the following agencies ***and*** request~~ing~~ comments:

(1) NH department of resources and economic development;

(2) NH department of health and human services;

(3) NH fish and game department;

(4) NH office of ***energy and*** ~~state~~ planning;

(5) US EPA Region I;

(6) US Army Corps of Engineers;

(7) US Fish and Wildlife Service;

(8) National Marine Fisheries Service;

(9) Local river advisory committees, if applicable;

(10) National Park Service; and

(11) Natural Resources Conservation Service.

(e) The department shall respond to all comments received as a result of public participation and intergovernmental coordination. If a request to hold a public hearing is received, the department shall hold a public hearing~~,~~ in accordance with the provisions of Env-C ~~203~~ ***200 that apply to non-adjudicative proceedings***.

(f) Following this public participation process, the department shall, based on any further information submitted during the public hearing, make a final decision to allow or deny the proposed impact on water quality. If the application is denied, the applicant may revise the submittal to decrease or eliminate the projected impact to high quality waters~~,~~ and resubmit the application for consideration under the full review process.

Env-Ws***q*** 1708.12 ~~Transfer of Water to Public Water Supplies.~~ ***Transfer of Water***

~~The transfer of waters from rivers, streams, lakes, or ponds to waters used as a public water supply shall be subject to the following conditions:~~

~~(a) Both the source water in the area of the withdrawal and the receiving water shall be acceptable for water supply uses after treatment;~~

~~(b) The chemical and physical water quality parameters of the source water shall be at least equal to the water quality of the receiving water;~~

~~(c) The biological characteristics of the source water shall be compatible with those of the receiving water and shall not contain species of aquatic life that would adversely affect the species of aquatic life in the receiving water; and~~

~~(d) The transfer and withdrawal shall comply with the antidegradation provisions of this part.~~

(a) In this section, "transfer" means the intentional conveyance of water from one surface water to another surface water for the purpose of increasing the volume of water available for withdrawal from the receiving surface water. The term does not include the transfer of stormwater, for the purpose of managing stormwater during construction, between basins created or otherwise lawfully used for stormwater detention or treatment, or both, and does not include the discharge of stormwater from a detention or treatment basin to a surface water.

(b) A transfer shall be exempt from (c) and (d), below, unless one or more of the following apply:

(1) The transfer was not in active operation prior to the effective date of the 2011 readoption of this section, as determined pursuant to (f) through (i), below;

(2) The transfer is causing or contributing to a violation of surface water quality standards in the source water or receiving water; or

(3) A change that could impact any designated use of the source water or receiving water is made to the transfer on or after the effective date of the 2011 readoption of this section such that a water quality certification is required under RSA 485-A:12, III or IV.

(c) The transfer of water from one surface water to another shall not be allowed unless all of the following conditions are met:

(1) The transferred water does not contain exotic aquatic species or other species of aquatic life that could result in a violation of Env-Wq 1703.19, relative to the integrity of the biological and aquatic community, in the receiving water;

(2) Existing and designated uses will be maintained and supported in the source water and in the receiving water;

(3) The withdrawal from the source water and transfer to the receiving water either:

a. Will not result in any degradation of water quality; or

b. Have both been reviewed under the process specified in Env-Wq 1708.10 and determined by the department to meet the criteria specified for approval in Env-Wq 1708.10(b)(1)-(3); and

(4) A water conservation plan that meets the water conservation requirements set forth in Env-Wq 2101 has been approved by the department and is being complied with.

(d) Transferred water may be treated to comply with the requirements of this section.

(e) If a transfer is exempt under (b), above, or if all of the conditions specified in (c), above, are met, the transfer of water shall not constitute a discharge under RSA 485-A:8, I, or RSA 485-A:13, I(a).

(f) A transfer shall be deemed to have been in active operation prior to the effective date of the 2011 readoption of this section if all of the following are true:

(1) The infrastructure necessary for the transfer is in place and in usable condition;

(2) Water has been transferred for at least one day in each of at least 3 years from 2000 through 2011; and

(3) At the time of its original initiation, the transfer complied with applicable legal requirements.

(g) If a transfer does not meet the conditions specified in (f), above, the person responsible for the transfer may request the department to make a determination that the transfer was in active operation by submitting the following information in writing:

(1) The reason(s) why the infrastructure necessary for the transfer is not in place or is not in usable condition, if applicable;

(2) The total time span, in years, over which the transfer has occurred from the first known transfer to the present;

(3) The most recent year during which the transfer occurred; and

(4) Why, based on the information provided in (1)-(3), above, it would be a fair and just result for the department to determine that the transfer qualifies as a transfer that was in active operation prior to the effective date of the 2011 readoption of this section.

(h) If the department determines, based on information provided pursuant to (g), above, that it would be fair and just to determine that the transfer qualifies as a transfer that was in active operation prior to the effective date of the 2011 readoption of this section, then the department shall make that determination.

(i) The department shall notify the person who requested a determination pursuant to (g), above, in writing of its decision.

PART Env-W~~s~~***q*** 1709 REMOVAL OF DESIGNATED USES

Env-W~~s~~***q*** 1709.01 Requirements.

(a) Before requesting that the state legislature remove a designated use, the department shall conduct a use attainability analysis in accord with 40 CFR Part 131.

(b) Based on the information provided in (~~1~~***a*****),** above, the department may propose to the state legislature, after public notice and comment, that a designated use which is not an existing use be removed or that subcategories of a use be established when attaining the designated use is not feasible because:

(1) Naturally occurring substance concentrations prevent the attainment of the use;

(2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions can be compensated by the discharge of sufficient volume of effluent discharges without violating state water conservation requirements to enable uses to be met;

(3) Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;

(4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use;

(5) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, unrelated to water quality, preclude attainment of aquatic life protection uses; or

(6) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread negative economic and social impact, as determined using the provisions delineated in "Interim Economic Guidance for Water Quality Standards", EPA-823-B-95-002, ~~published by the EPA on~~ ***dated*** March, 1995.

Exhibit 4

TABLE OF CONTENTS

CHAPTER Env-Wq 1700 SURFACE WATER QUALITY REGULATIONS

Statutory Authority: RSA 485-A:6, I and RSA 485-A:8, VI

REVISION NOTE #1:

Document #7151, effective 12-10-99, readopted with amendments and renumbered the former Chapter Env-Ws 430 as Env-Ws 1700, containing Part Env-Ws 1701 through Part Env-Ws 1709. Document #7151 made extensive changes to the wording, format, structure, and numbering of rules in the former Chapter Env-Ws 430. Document #7151 superseded all prior filings for rules in the former Chapter Env-Ws 430. The prior filings for former Chapter Env-Ws 430 included the following documents:

#1881, eff 12-7-81
#2707, eff 5-15-84; EXPIRED 5-15-90
#4896, eff 8-3-90
#6301, INTERIM, eff 8-2-96
#6351, eff 10-5-96

REVISION NOTE #2:

Document #9162, effective 5-21-08, readopted with amendments and renumbered former Chapter Env-Ws 1700 as Chapter Env-Wq 1700. Former Chapter Env-Ws 1700 contained Part Env-Ws 1701 through Part Env-Ws 1709. The redesignation from subtitle Env-Ws to subtitle Env-Wq was done pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05. Document #9162 replaces all prior filings for rules in the former Chapter Env-Ws 1700. The prior filings include the following documents:

Former Part Env-Ws 1701 through Part Env-Ws 1709:

#7151, eff 12-10-99
#9034, INTERIM, eff 12-10-07

Former Part Env-Ws 1710 Emergency Water Transfer:

#7669, EMERGENCY, eff 3-29-02, EXPIRED 9-25-02

PART Env-Wq 1701 INTRODUCTION

Env-Wq 1701.01 Purpose. The purpose of these rules is to establish water quality standards for the state's surface water uses as set forth in RSA 485-A:8, I, II, III and V. These standards are intended to protect public health and welfare, enhance the quality of water and serve the purposes of the Clean Water Act and RSA 485-A. These standards provide for the protection and propagation of fish, shellfish, and wildlife, and provide for such uses as recreational activities in and on the surface waters, public water supplies, agricultural and industrial uses, and navigation in accord with RSA 485-A:8, I and II.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1701.02 Applicability.

(a) These rules shall apply to all surface waters.

(b) These rules shall apply to any person who causes point or nonpoint source discharge(s) of pollutants to surface waters, or who undertakes hydrologic modifications, such as dam construction or water withdrawals, or who undertakes any other activity that affects the beneficial uses or the level of water quality of surface waters.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

PART Env-Wq 1702 DEFINITIONS

Env-Wq 1702.01 "Acute toxicity" means an adverse effect such as mortality or debilitation caused by an exposure of 96 hours or less to a toxic substance.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.02 "Antidegradation" means a provision of the water quality standards that maintains and protects existing water quality and uses.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.03 "Assimilative capacity" means the amount of a pollutant or pollutants that can safely be released to a waterbody without causing violations of applicable water quality criteria or negatively impacting uses.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.04 "Benthic community" mean the community of plants and animals that live on, over, or in the substrate of the surface water.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.05 "Benthic deposit" means any sludge, sediment or other organic or inorganic accumulations on the bottom of the surface water.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.06 "Best management practices" means those practices which are determined, after problem assessment and examination of all alternative practices and technological, economic and institutional considerations, to be the most effective practicable means of preventing or reducing the amount of pollution generated by point or nonpoint sources to a level compatible with water quality goals.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.07 "Biological integrity" means the ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.08 "Biota" means species of plants or animals occurring in surface waters.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.09 "CFR" means the Code of Federal Regulations published by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.10 "Chronic toxicity" means an adverse effect such as reduced reproductive success or growth, or poor survival of sensitive life stages, which occurs as a result of prolonged exposure to a toxic substance.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.11 "Class A and B waters" means those surface waters that are legislatively classified as Class A or B waters pursuant to RSA 485-A:8, I, II and III.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.12 "Clean Water Act (CWA)" means the federal Clean Water Act, Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117, Pub. L. 100-4, 33 U.S.C. 1251 et seq.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.13 "Community" means one or more populations co-occurring in surface waters.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.14 "Criterion" means:

(a) A designated concentration of a pollutant;

(b) A narrative statement concerning that pollutant that when not exceeded, will protect an organism, a population, a community, or a prescribed water use; or

(c) A numeric value or narrative statement related to other characteristics of the surface waters, such as flow and biological community integrity.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.15 "Cultural eutrophication" means the human-induced addition of wastes containing nutrients to surface waters which results in excessive plant growth and/or a decrease in dissolved oxygen.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.16 "Department" means the department of environmental services.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.17 "Designated uses" means those uses specified in water quality standards for each waterbody or segment whether or not such uses are presently occurring.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.18 "Discharge" means:

(a) The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters, either directly or indirectly through the groundwater, whether done intentionally, unintentionally, negligently or otherwise; or

(b) The placing of a pollutant in a location where the pollutant is likely to enter surface waters.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.19 "Dissolved oxygen (D.O.)" means the oxygen dissolved as a gas in sewage, water or other liquid expressed in milligrams per liter (mg/l), parts per million (ppm), or percent saturation.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.20 "Effluent limitation(s)" means any restriction(s) imposed by the department pursuant to RSA 485-A on quantities, discharge rates, characteristics, and concentrations of pollutants which are discharged to surface waters.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.21 "Environmental Protection Agency (EPA)" means the United States Environmental Protection Agency.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.22 "Epilimnion" means the upper, well-circulated warm layer of a thermally stratified lake, pond, impoundment or reservoir.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.23 "Existing uses" means those uses, other than assimilation or waste transport, which actually occurred in the waterbody on or after November 28, 1975, whether or not they are included in the water quality standards.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.24 "High quality surface waters" means all surface waters whose water quality is better than required by any aquatic life and/or human health water quality criteria contained in these rules or other criteria assigned to the surface water, or whose qualities and characteristics make them critical to the propagation or survival of important living natural resources.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.25 "Industrial waste" means "industrial waste" as defined in RSA 485-A:2, VI, namely "any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade or business or from development of any natural resources."

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.26 "Maintain and protect" means to preserve the existing and designated uses of surface waters.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.27 "Mixing zone" means a defined area or volume of the surface water surrounding or adjacent to a wastewater discharge where the surface water, as a result of the discharge, might not meet all applicable water quality standards.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.28 "Most sensitive use" means the use which is most susceptible to degradation by a specific pollutant, combination of pollutants, or activity, such as:

(a) Drinking;

(b) Swimming;

(c) Boating;

(d) Fish and aquatic life propagation;

(e) Fish consumption by higher level consumers including man; or

(f) Irrigation.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.29 "Naturally occurring conditions" means conditions which exist in the absence of human influences.

S Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.30 "Nephelometric turbidity unit (NTU)" means a standard used to measure the optical property that causes light to be scattered and absorbed rather than transmitted in straight lines through water, as measured by a nephelometer.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.31 "Noncontact cooling water" means water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product or finished product and to which no pollutants, other than heat, have been added.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.32 "Nonpoint source" means any source other than a point source as defined in Env-Wq 1702.38.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.33 "No observed effect concentration (NOEC)" means the highest measured continuous concentration, in percent, of an effluent at which no adverse effects are observed on the aquatic test organisms.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.34 "Nuisance species" means any species of flora or fauna living in or near the water whose noxious characteristics or presence in sufficient number or mass prevent or interfere with a designated use of those surface waters.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.35 "Other wastes" means "other wastes" as defined in RSA 485-A:2, VIII, namely, "garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals and other substances other than sewage or industrial wastes, and any other substance harmful to human, animal, fish or aquatic life."

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.36 "Outstanding Resource Water (ORW)" means surface waters of exceptional recreational or ecological significance.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.37 "pH" means a measure of the hydrogen ion concentration in a solution, expressed as the logarithm to the base 10, of the reciprocal of the hydrogen ion concentration in gram moles per liter.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.38 "Point source" means a discernible, confined, and discrete conveyance from which pollutants are or might be discharged, excluding return flows from irrigated agriculture or agricultural stormwater runoff, and including but not limited to a:

(a) Pipe;

(b) Ditch;

(c) Channel;

(d) Tunnel;

(e) Conduit;

(f) Well;

(g) Discrete fissure;

(h) Container;

(i) Rolling stock;

(j) Concentrated animal feeding operation; or

(k) Vessel or other floating craft.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.39 "Pollutant" means "pollutant" as defined in 40 CFR 122.2.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.40 "Pollution" means the man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of water.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.41 "Population" means a group of individuals of one biological species co-occurring in time and space.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.42 "Publicly owned treatment works (POTW)" means any device or system used in the treatment of municipal sewage and/or industrial wastewater which is owned by the state, or a political subdivision of the state.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.43 "Radionuclide" means a radioactive atomic nucleus specified by its atomic number, atomic mass and energy state.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.44 "7Q10" means the lowest average flow which occurs for 7 consecutive days on an annual basis with a recurrence interval of once in 10 years on average, expressed in terms of volume per time period.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.45 "Sewage" means "sewage" as defined in RSA 485-A:2, X, namely, "the water carried waste products from buildings, public or private, together with such groundwater infiltration and surface water as may be present."

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.46 "Surface waters" means "surface waters of the state" as defined in RSA 485-A:2, XIV and waters of the United States as defined in 40 CFR 122.2.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.47 "Tainting substance" means any material that can impart objectionable taste, odor, or color to the flesh of fish or other edible aquatic organisms.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.48 "Tidal waters" means those portions of the Atlantic Ocean within the jurisdiction of the state, and other surface waters subject to the rise and fall of the tide.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.49 "Toxicity test" means a test to determine the toxicity of a chemical or an effluent that involves exposing test organisms in a laboratory setting to one or more concentrations of the chemical or dilutions of the effluent in accordance with standard laboratory procedures.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.50 "Toxic unit chronic (TU_c)" means the reciprocal of the effluent dilution that causes no unacceptable effect to the test organisms by the end of the chronic exposure period. The TU_c can be calculated by dividing 100 by the chronic NOEC value.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.51 "Waste" means "waste" as defined in RSA 485-A:2, XVI, namely "industrial waste and other wastes."

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.52 "Water quality standards" means the combination of designated uses of surface waters, and the water quality criteria for such surface waters based upon such uses.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.53 "Wetland" means "wetland" as defined in RSA 482-A:2, X, namely "an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas as delineated in accordance with Env-Wt 100 et seq.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1702.54 "Zone of passage" means an area bordering a mixing zone and which is free from pollutants and which allows for unobstructed movement of aquatic organisms.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

PART Env-Wq 1703 WATER QUALITY STANDARDS

Env-Wq 1703.01 Water Use Classifications.

(a) State surface waters shall be divided into class A and class B, pursuant to RSA 485-A:8, I, II and III. Each class shall identify the most sensitive use which it is intended to protect.

(b) All surface waters shall be restored to meet the water quality criteria for their designated classification including existing and designated uses, and to maintain the chemical, physical, and biological integrity of surface waters.

(c) All surface waters shall provide, wherever attainable, for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the surface waters.

(d) Unless the flows are caused by naturally occurring conditions, surface water quantity shall be maintained at levels adequate to protect existing and designated uses.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.02 Wetlands Criteria.

(a) Subject to (b), below, wetlands shall be subject to the criteria listed in this part.

(b) Wherever the naturally occurring conditions of the wetlands are different from the criteria listed in these rules, the naturally occurring conditions shall be the applicable water quality criteria.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.03 General Water Quality Criteria.

(a) The presence of pollutants in the surface waters shall not justify further introduction of pollutants from point or nonpoint sources, alone or in any combination.

(b) State surface waters shall retain their legislated classification even if they fail to meet any or all of the general, class-specific, or toxic criteria contained in this part.

(c) The following physical, chemical and biological criteria shall apply to all surface waters:

(1) All surface waters shall be free from substances in kind or quantity which:

a. Settle to form harmful deposits;

b. Float as foam, debris, scum or other visible substances;

c. Produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated uses;

d. Result in the dominance of nuisance species; or

e. Interfere with recreational activities;

(2) The level of radioactive materials in all surface waters shall not be in concentrations or combinations that would:

a. Be harmful to human, animal or aquatic life or the most sensitive designated use;

b. Result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans; or

c. Exceed limits specified in EPA's national drinking water regulations or Env-Ws 300 or successor rules in subtitle Env-Dw, whichever are more stringent; and

(3) Tainting substances shall not be present in concentrations that individually or in combination are detectable by taste and odor tests performed on the edible portions of aquatic organisms.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.04 Class-Specific Criteria. In addition to the general water quality criteria specified in Env-Wq 1703.03, the class criteria specified in Env-Wq 1703.05 through Env-Wq 1703.32 shall apply to all surface waters. The surface waters in each classification shall satisfy all the provisions of the lower classifications.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.05 Combined Sewer Overflows.

(a) To demonstrate that the class B criteria cannot reasonably be met in surface waters as a result of the combined sewer overflows, the applicant for a water discharge permit under RSA 485-A:13 shall conduct and submit a use attainability analysis (UAA) in accord with 40 CFR Part 131 to the department.

(b) If, after public notice and comment, the department determines, based on the information provided in (a), above, that the UAA supports the establishment of less stringent criteria, it shall recommend a change in the classification of the waterbody to the legislature.

(c) Exceedances of class B criteria and uses shall be limited to those identified in the Combined Sewer Overflow Facilities Plan after full implementation of the control measures.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.06 Bacteria.

(a) Uses and criteria associated with bacteria shall be as set forth in RSA 485-A:8, I, II, and V.

(b) Subject to (c), below, the bacteria criteria shall be applied at the end of a wastewater treatment facility's discharge pipe.

(c) For combined sewer overflows that discharge into non-tidal waters, a bacteria criteria of 1,000 Escherichia coli per 100 milliliters shall be applied at the end of the combined sewer overflow's discharge pipe.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.07 Dissolved Oxygen.

(a) Class A waters shall have a dissolved oxygen content of at least 75% saturation, based on a daily average, and an instantaneous minimum of at least 6 mg/l at any place or time except as naturally occurs.

(b) Except as naturally occurs, or in waters identified in RSA 485-A:8, III, or subject to (c), below, class B waters shall have a dissolved oxygen content of at least 75% of saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5 mg/l.

(c) For the period from October 1st to May 14th, in areas identified by the fish and game department as cold water fish spawning areas of species whose early life stages are not directly exposed to the water, the 7 day mean dissolved oxygen concentration shall be at least 9.5 mg/l and the instantaneous minimum dissolved oxygen concentration shall be at least 8 mg/l. This period shall be extended to June 30 for a particular waterbody if the fish and game department determines it is necessary to protect spring spawners or late hatches of fall spawners, or both.

(d) Unless naturally occurring or subject to (a), above, surface waters within the top 25 percent of depth of thermally unstratified lakes, ponds, impoundments and reservoirs or within the epilimnion shall contain a dissolved oxygen content of at least 75 percent saturation, based on a daily average and an instantaneous minimum dissolved oxygen content of at least 5 mg/l. Unless naturally occurring, the dissolved oxygen content below those depths shall be consistent with that necessary to maintain and protect existing and designated uses.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.08 Benthic Deposits.

(a) Class A waters shall contain no benthic deposits, unless naturally occurring.

(b) Class B waters shall contain no benthic deposits that have a detrimental impact on the benthic community, unless naturally occurring.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.09 Oil and Grease.

(a) Class A waters shall contain no oil or grease, unless naturally occurring.

(b) Class B waters shall contain no oil or grease in such concentrations that would impair any existing or designated uses.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.10 Color.

(a) Class A waters shall contain no color, unless naturally occurring.

(b) Class B waters shall contain no color in such concentrations that would impair any existing or designated uses, unless naturally occurring.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.11 Turbidity.

(a) Class A waters shall contain no turbidity, unless naturally occurring.

(b) Class B waters shall not exceed naturally occurring conditions by more than 10 NTUs.

(c) Waters identified in RSA 485-A:8, III shall contain no turbidity of unreasonable kind or quality.

(d) For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge, a violation of the turbidity standard shall be deemed to have occurred.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.12 Slicks, Odors, and Surface Floating Solids.

(a) Class A waters shall contain no slicks, odors, or surface floating solids unless naturally occurring.

(b) Class B waters shall contain no slicks, odors, or surface floating solids that would impair any existing or designated use, unless naturally occurring.

(c) Waters identified in RSA 485-A:8, III shall be free from slicks, odors, and surface floating solids of unreasonable kind or quantity.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.13 Temperature.

(a) There shall be no change in temperature in class A waters, unless naturally occurring.

(b) Temperature in class B waters shall be in accordance with RSA 485-A:8, II, and VIII.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.14 Nutrients.

(a) Class A waters shall contain no phosphorus or nitrogen unless naturally occurring.

(b) Class B waters shall contain no phosphorus or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.

(c) Existing discharges containing either phosphorus or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards.

(d) There shall be no new or increased discharge of phosphorus into lakes or ponds.

(e) There shall be no new or increased discharge(s) containing phosphorus or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.15 Gross Beta Radioactivity. Class A and B waters shall not contain gross beta radioactivity in excess of 1,000 picocuries per liter.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.16 Strontium-90. Class A and B waters shall not contain strontium-90 in excess of 10 picocuries per liter.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.17 Radium-226. Class A and B waters shall contain no radium-226 in excess of 3 picocuries per liter.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.18 pH.

(a) The pH of Class A waters shall be as naturally occurs.

(b) The pH of Class B waters shall be 6.5 to 8.0, unless due to natural causes.

(c) The pH of waters identified in RSA 485-A:8, III shall be 6.0 to 9.0, unless due to natural causes.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.19 Biological and Aquatic Community Integrity.

(a) The surface waters shall support and maintain a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.

(b) Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.20 Human Health Criteria for Toxic Substances.

(a) The department shall use a risk factor of one in 1,000,000 when determining human health criteria for all new discharges. The department shall also use a one in 1,000,000 risk factor in determining human health criteria for all existing discharges unless it can be demonstrated by the applicant for a water discharge permit under RSA 485-A:13 that the criteria obtained using the one in 1,000,000 risk factor cannot be achieved because it is either technologically impossible or economically unfeasible. However, in no case shall the department allow a risk factor greater than one in 100,000.

(b) For the protection of human health, class A and B waters shall not contain dioxin (2, 3, 7, 8 - TCDD) in excess of 0.001 ng/l, unless allowed under part Env-Wq 1707.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.21 Water Quality Criteria for Toxic Substances.

(a) Unless naturally occurring or allowed under part Env-Wq 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that:

(1) Injure or are inimical to plants, animals, humans or aquatic life; or

(2) Persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife which might consume aquatic life.

(b) Unless allowed in part Env-Wq 1707 or naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703.1, subject to the notes as explained in Env-Wq 1703.22, as follows:

TABLE 1703.1
Water Quality Criteria For Toxic Substances

Chemical	Protection of Aquatic Life Concentration in micrograms per liter (ug/l)				Protection of Human Health Units per Liter	
	Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
Acenaphthene	1,700	520	970	710	20 ug[j]	20 ug[j]
Acrolein	68	21	55	--	320 ug	780 ug
Acrylonitrile	7,550	2,600	--	--	0.059 ug[c]	0.66 ug[c]
Aldrin	3.0[k]	--	1.3[k]	--	0.13 ng[c]	0.14 ng[c]
Alkalinity	--	20,000	--	--	--	--
Aluminum	750	87	--	--	--	--
Ammonia[a]					--	--
Aniline	28	14	77	37	--	--
Anthracene	(see Polynuclear Aromatic Hydrocarbons)				9,600 ug	110,000 ug
Antimony	9,000	1,600	--	--	14 ug[l]	4300 ug
Arsenic	340[d,i]	150[d,i]	69[d,i]	36[d,i]	18 ng[b,c]	140 ng[b,c]
Asbestos	--	--	--	--	7,000,000 fibres[c]	
Barium	--	--	--	--	1.0 mg[l]	--
Benzene	5,300	--	5,100	700	1.2 ug[c]	71 ug[c]
Benzidine	2,500	--	--	--	0.12 ng[c]	0.54 ng[c]
Benzo(a) Anthracene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Benzo(a) Pyrene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Benzo(b) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Benzo(g,h,i) Perylene	(see Polynuclear Aromatic Hydrocarbons)				--	--
Benzo(k) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Beryllium	130	5.3	--	--	1	--
BHC	100[e]	--	0.34[e]	--	(see individual compounds)	
alpha-BHC	(see BHC)				3.9 ng[c]	13 ng[c]
beta-BHC	(see BHC)				14 ng[c]	46 ng[c]
delta-BHC	(see BHC)				0.0123 ug	0.0414 ug
gamma-BHC (Lindane)	0.95	.08	.16[k]	--	19 ng[c]	63 ng[c]
technical-BHC	--	--	--	--	0.0123 ug	0.0414 ug
Bis (2-Chloroethyl) Ether	(see Chloroalkyl ethers)				0.031[c]	1.4[c]
Bis (2-Ethylhexy)Phthalate	(see Phthalate esters)				1.8 ug[c]	5.9 ug[c]
Bromoform	(see Halomethanes)				4.3 ug[c]	360 ug[c]
4-Bromophenyl phenyl ether	(see Haloethers)				--	--
Butyl benzyl phthalate	(see Phthalate esters)				3000 ug	5200 ug
Cadmium[i]	0.95[f,d]	0.80[f,d]	42[d]	9.3[d]	--	--
Carbon Tetrachloride	35,200	--	50,000	--	0.25 ug[c]	4.4 ug[c]
Chlordane	2.4[k]	0.0043[k]	0.09[k]	0.004[k]	2.1 ng[c]	2.2 ng[c]
Chlorinated benzenes	250[e]	50[e]	160[e]	129[e]	(see individual compounds)	
Chlorobenzene	(See Chlorinated benzenes)				20 ug[j]	20 ug[j]
Chlorides	860,000	230,000	--	--	--	--
Chlorinated napthalenes	1,600[e]	--	7.5[e]	--	(see individual compounds)	

Chlorine	19	11	13	7.5	1	--
Chloroalkyl ethers	238,000[e]	--	--	--	(see individual compounds)	
Chloroethyl ether (Bis-2)	(see Chloroalkyl ethers)				0.031 ug[c]	1.4 ug[c]
Chloroethyl vinyl ether-2	(see Chloroalkyl ethers)				--	--
Chlorodibromomethane	(see Halomethanes)				0.41 ug[c]	34 ug[c]
Chloroethoxy methane (Bis-2)	(see Chloroalkyl ethers)				--	--
Chloroform	28,900	1,240	(see Halomethanes)		5.7 ug[c]	470 ug[c]
Chloroisopropyl ether (Bis-2)	(see Chloroalkyl ethers)				1,400 ug	170,000 ug
p-Chloro-m-cresol	30	--	--	--	3,000 ug[j]	3,000 ug[j]
Chloromethyl ether (Bis)	(see Chloroalkyl ethers)				0.13 ng[c]	0.78 ng[c]
Chloronaphthalene 2	(see Chlorinated naphthalenes)				1,700 ug	4,300 ug
Chlorophenol 2	4,380	2,000	--	--	0.1 ug[j]	0.1 ug[j]
Chlorophenol 3	--	--	--	--	0.1 ug[j]	0.1 ug[j]
Chlorophenol 4	--	--	29,700	--	0.1 ug[j]	0.1 ug[j]
Chlorophenoxy herbicides (2,4,5-TP)	--	--	--	--	10 ug	--
Chlorophenoxy herbicides (2,4-D)	--	--	--	--	100 ug[l]	--
Chlorophenyl phenyl ether 4	(see Haloethers)				--	--
Chlorpyrifos	0.083	0.041	0.011	0.0056	--	--
Chloro-4 Methyl-3 Phenol	30	--	--	--	3,000 ug[j]	3,000 ug[j]
Chromium +6	16[d,i]	11[d,i]	1,100[d,i]	50[d,i]	1	--
Chromium+3	183[f,d,i]	24[f,d,i]	10,300	--	--	--
Chrysene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Copper[i]	3.6[f,d]	2.7[f,d]	4.8[d]	3.1[d]	1,000 ug[j]	1,000 ug[j]
Cyanide	22[m]	5.2[m]	1.0[m]	1.0[m]	700 ug[l]	220,000 ug
DDE(4,4')	1,050	--	14	--	0.59 ng[c]	0.59 ng[c]
DDD(4,4')	0.06	--	3.6	--	0.83 ng[c]	0.84 ng[c]
DDT(4,4')	1.1[k]	0.001[k]	0.13[k]	0.001[k]	0.59 ng[c]	0.59 ng[c]
Demeton	--	0.1	--	0.1	--	--
Dibenzo(a,h)Anthracene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Dibutyl Phthalate	(see Phthalate esters)				2.7 mg	12 mg
Dichlorobenzenes	1,120[e]	763[e]	1,970[e]	--	(see individual compounds)	
Dichlorobenzene(1,2)	(see Dichlorobenzenes)				2,700 ug[l]	17,000 ug
Dichlorobenzene(1,3)	(see Dichlorobenzenes)				400 ug	2600 ug
Dichlorobenzene(1,4)	(see Dichlorobenzenes)				400 ug[l]	2600 ug
Dichlorobenzidine(3,3')	--	--	--	--	0.04 ug[c]	0.077 ug[c]
Dichlorobromomethane	(see Halomethanes)				0.56 ug[c]	46 ug[c]
Dichlorodifluoromethane	(see Halomethanes)				6.9 mg[c]	570 mg[c]
Dichloroethane(1,2)	118,000	20,000	113,000	--	0.38 ug[c]	99 ug[c]
Dichloroethylenes	11,600[e]	--	224,000[e]	--	(see individual compounds)	
Dichloroethylene(1,1)	(see Dichloroethylenes)				0.057 ug[c]	3.2 ug[c]
Dichloroethylene(1,2-Trans)	(see Dichloroethylenes)				700 ug[l]	140,000 ug
Dichlorophenol(2,3)	--	--	--	--	0.04 ug[j]	0.04 ug[j]
Dichlorophenol(2,4)	2,020	365	--	--	93 ug	790 ug

Dichlorophenol(2,5)	--	--	--	--	0.5 ug[j]	0.5 ug[j]
Dichlorophenol(2,6)	--	--	--	--	0.2 ug[j]	0.2 ug[j]
Dichlorophenol(3,4)	--	--	--	--	0.3 ug[j]	0.3 ug[j]
Dichloropropanes	23,000[e]	5,700[e]	10,300[e]	3,040[e]	(see individual compounds)	
Dichloropropane(1,2)	(see Dichloropropanes)				0.52 ug[c]	39 ug[c]
Dichloropropenes	6,060[e]	244[e]	790[e]	--	(see individual compounds)	
Dichloropropene(1,3)	(see Dichloropropenes)				10 ug	1700 ug
Dieldrin	0.24	0.056	0.71[k]	0.0019[k]	0.14 ng[c]	0.14 ng[c]
Diethyl Phthalate	--	--	--	--	23 mg	120 mg
Dimethyl Phenol(2,4)	1,300	530	270	110	400 ug[j]	400 ug[j]
Dimethyl Phthalate	(see Phthalate esters)				313 mg	2.9 g
Di-n-butyl Phthalate	(see Phthalate esters)				2.7 mg	12 mg
Dinitrotoluenes	330[e]	230[e]	590[e]	370[e]	(see individual compounds)	
Dinitrotoluene(2,4)	(see Dinitrotoluenes)				0.11 ug[c]	9.1 ug[c]
Dinitrotoluene(2,6)	(see Dinitrotoluenes)				--	--
Dinitro-o-cresol (2,4)	(see Nitrophenols)				13.4 ug	765 ug
Dinitro-o-cresol (4,6)	(see Nitrophenols)				13.4 ug	765 ug
Dinitrophenols	(see Nitrophenols)				70 ug	14,000 ug
Dinitrophenol(2,4)	(see Nitrophenols)				70 ug	14,000 ug
Di-n-octyl phthalate	(see Phthalate esters)				--	--
Diphenylhydrazine(1,2)	270	--	--	--	0.04 ug[c]	0.54 ug[c]
Di-2-ethylhexyl phthalate	(see Phthalate esters)				1.8 ug[c]	5.9 ug[c]
alpha-Endosulfan	0.22[k]	0.056[k]	0.034[k]	0.0087[k]	110 ug	240 ug
beta-Endosulfan	0.22[k]	0.056[k]	0.034[k]	0.0087[k]	110 ug	240 ug
Endosulfan Sulfate	--	--	--	--	110 ug	240 ug
Endrin	0.086	0.036	0.037[k]	0.0023[k]	0.76 ug	0.81 ug
Endrin Aldehyde	--	--	--	--	0.76 ug	0.81 ug
Ethylbenzene	32,000	--	430	--	3,100 ug[l]	29,000 ug
Fluorene	(see Polynuclear Aromatic Hydrocarbons)				1,300 ug	14,000 ug
Guthion	--	0.01	--	0.01	--	--
Haloethers	360[e]	122[e]	--	--	(see individual compounds)	
Halomethanes	11,000[e]	--	12,000[e]	6,400[e]	(see individual compounds)	
Heptachlor	0.52[k]	0.0038[k]	0.053[k]	0.0036[k]	0.21 ng[c]	0.21 ng[c]
Heptachlor Epoxide	0.52[k]	0.0038[k]	0.053[k]	0.0036[k]	0.10 ng[c]	0.11 ng[c]
Hexachloroethane	980	540	940	--	1.9 ug[c]	8.9 ug[c]
Hexachlorobenzene	(see Chlorinated benzenes)				0.75 ng[c]	0.77 ng[c]
Hexachlorobutadiene	90	9.3	32	--	0.44 ug[c]	50 ug[c]
Hexachlorocyclo-hexane-(Technical)	(see BHC)				0.0123 ug	0.0414 ug
Hexachlorocyclopentadiene	7.0	5.2	7.0	--	1.0[j]	1.0[j]
Ideno(1,2,3-cd)Pyrene	(see Polynuclear Aromatic Hydrocarbons)				0.0044 ug[c]	0.049 ug[c]
Iron	--	1,000	--	--	0.3 mg	--
Isophorone	117,000	--	12,900	--	36 ug[c]	2,600 ug[c]
Lead[i]	14[f,d]	0.54[f,d]	210[d]	8.1[d]	--	--
Malathion	0.1	0.1		0.1	--	--
Manganese	--	--	--	--	50 ug	100 ug
Mercury	1.4[d,i,g]	0.77[d,i,g]	1.8[d,i,g]	0.94[d,i,g]	0.05 ug	0.051 ug
Methoxychlor	--	0.03	--	0.03	100 ug[l]	--
Methyl Bromide	(see Halomethanes)				48 ug	4,000 ug

Methyl Chloride	(see Halomethanes)				--	--
Methylene Chloride	(see Halomethanes)				4.7 ug[c]	1,600 ug[c]
2 Methyl-4,6-Dinitrophenol	(see Nitrophenols)				13.4 ug	765 ug
2-Methyl-4-chlorophenol	--	--	--	--	1,800 ug[j]	1,800 ug[j]
3-Methyl-4-chlorophenol	30	--	--	--	3,000 ug[j]	3,000 ug[j]
3-Methyl-6-chlorophenol	--	--	--	--	20 ug[j]	20 ug[j]
Mirex	--	0.001	--	0.001	--	--
Naphthalene	2,300	620	2,350	--	--	--
Nickel[i]	144.9 [f,d]	16.1 [f,d]	74[d]	8.2[d]	610 ug	4,600 ug
Nitrates	--	--	--	--	10 mg	--
Nitrobenzene	27,000	--	6,680	--	17 ug	30 ug[j]
Nitrophenols	230[e]	150[e]	4,850[e]	--	(see individual compounds)	
Nitrophenol 2	(see Nitrophenols)				--	--
Nitrophenol 4	(see Nitrophenols)				--	--
Nitrosamines	5,850[e]	--	3,300,000[e]	--	0.8 ng	1.24 ug
Nitrosodibutylamine N	(see Nitrosamines)				6.4 ng	587 ng
Nitrosodiethylamine N	(see Nitrosamines)				0.8 ng	1,240 ng
Nitrosodimethylamine N	(see Nitrosamines)				0.69 ng[c]	8.1 ug[c]
Nitrosodi-n-propylamine N	(see Nitrosamines)				0.005 ug[c]	1.4 ug[c]
Nitrosodiphenylamine N	(see Nitrosamines)				5.0 ug[c]	16 ug[c]
Nitrosopyrrolidine N	(see Nitrosamines)				16 ng	91,900 ng
Parathion	0.065	0.013	--	--	--	--
PCB	2.0[e]	0.014[e]	10.0[e]	0.03[e]	0.17 ng[c,n]	0.17 ng[c,n]
PCB-1242	(see PCB)				(see PCB)	(see PCB)
PCB-1254	(see PCB)				(see PCB)	(see PCB)
PCB-1221	(see PCB)				(see PCB)	(see PCB)
PCB-1248	(see PCB)				(see PCB)	(see PCB)
PCB-1260	(see PCB)				(see PCB)	(see PCB)
PCB-1016	(see PCB)				(see PCB)	(see PCB)
Pentachlorinated Ethanes	7,240	1,100	390	281	--	--
Pentachlorobenzene	(see Chlorinated benzenes)				3.5 ug	4.1 ug
Pentachlorophenol	5.28[h]	4.05[h]	13	7.9	0.28ug[c]	8.2ug[c]
Phenanthrene	(see Polynuclear Aromatic Hydrocarbons)					
Phenol	10,200	2,560	5,800	--	300 ug[j]	300 ug[j]
Phthalate Esters	940[e]	3[e]	2,944[e]	3.4[e]	--	--
Polychlorinated Biphenyls	(see PCB's)				--	--
Polynuclear Aromatic Hydrocarbons	--	--	300[e]	--	(see individual compounds)	
Pyrene	(see Polynuclear Aromatic Hydrocarbons)				960 ug	11,000 ug
Selenium		5	290[d,i]	71[d,i]	170 ug[l]	11,000 ug
Silver	0.32[f,i,g]	--	1.9[d,i,k]	--	105 ug[p]	65 mg[p]
Sulfide-Hydrogen Sulfide	--	2.0	--	2.0	--	--
Tetrachlorobenzene 1,2,4,5	(see Chlorinated benzenes)				2.3 ug	2.9 ug
Tetrachloroethane 1,1,2,2	--	2,400	9,020	--	0.17 ug[c]	11 ug[c]
	(see Tetrachloroethanes)					
Tetrachloroethanes	9,320[e]	--	--	--	(see individual compounds)	

Tetrachloroethylene	5,280	840	10,200	450	0.80 ug[c]	8.85 ug[c]
Tetrachlorophenol 2,3,5,6	--	--	440	--	--	--
Tetrachlorophenol 2,3,4,6	--	--	--	--	1.0 ug[j]	1.0 ug[j]
Thallium	1,400	40	2,130	--	1.7 ug	6.3 ug
Toluene	--	--	--	--	6.8 mg[l]	200 mg
Toxaphene	0.73	0.0002	0.21	0.0002	0.73 ng[c]	0.75 ng[c]
Tributyltin TBT	0.46	0.063	0.37	0.01	--	--
Trichlorinated Ethanes	18,000[e]	--	--	--	(see individual compounds)	
Trichlorbenzene 1,2,4	(see Chlorinated benzenes)				260 ug[l]	940 ug
Trichloroethane 1,1,1	--	--	31,200	--	1	--
Trichloroethane 1,1,2	--	9,400	--	--	0.60 ug[c]	42 ug[c]
Trichloroethylene	45,000	21,900	2,000	--	2.7 ug[c]	81 ug[c]
Trichlorofluoromethane	(see Halomethanes)				10 mg	860 mg
Trichlorophenol 2,4,5	--	--	--	--	1.0 ug[j]	1.0 ug[j]
Trichlorophenol 2,4,6	--	970	--	--	2.0 ug[j]	2.0 ug[j]
Vinyl Chloride	--	--	--	--	2.0 ug[c]	525 ug[c]
Zinc[i]	36.2[f,d]	36.5[f,d]	90[d]	81[d]	5,000 ug[j]	5,000 ug[j]

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.22 Notes For Table 1703.1. The following shall apply to Table 1703.1:

(a) The letter "a" shall indicate that the freshwater and saltwater aquatic life criteria for ammonia are shown in Env-Wq 1703.25 through Env-Wq 1703.31.

(b) The letter "b" shall indicate that the criteria refer to the inorganic form only.

(c) The letter "c" shall indicate that these criteria for the protection of human health are based on carcinogenicity. The human health criteria without this footnote are based on systemic toxicity.

(d) The letter "d" shall indicate that criteria for these metals are expressed as a function of the water effect ratio (WER) as defined in 40 CFR 131.36(c). The values displayed in Table 1703.1 correspond to a WER of 1.0. To determine metals criteria for different WER's, the procedures described in the EPA publication "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals" (EPA-823-B-94-001) shall be used. For copper, the “Streamlined Water-Effect Ratio procedure for Discharges of Copper” (EPA-822-R-01-005) or the Biotic Ligand Model (freshwater only) (EPA-822-R-07-001) may also be used.

(e) The letter "e" shall indicate that the following classes of compounds have 2 or more isomers and the sum of the concentrations of each isomer shall meet the appropriate aquatic life criteria:

(1) BHC;

(2) Chlorinated benzenes;

(3) Chlorinated naphthalenes;

(4) Chloroalkyl ethers;

(5) Dichlorobenzenes;

(6) Dichloroethylenes;

(7) Dichloropropanes;

(8) Dichloropropenes;

(9) Dinitrotoluenes;

(10) Haloethers;

(11) Halomethanes;

(12) Nitrophenols;

(13) Nitrosamines;

(14) PCB;

(15) Phthalate esters;

(16) Polynuclear aromatic hydrocarbons;

(17) Tetrachloroethanes; and

(18) Trichlorinated ethanes.

(f) The letter "f" shall indicate that the freshwater aquatic criteria for these metals are expressed as a function of the total hardness, as mg/l $CaCO_3$ of the surface water. The values displayed in Table 1703.1 correspond to a total hardness of 25 mg/l. To calculate aquatic life criteria for other hardness values between 25 mg/l and 400mg/l, expressed as calcium carbonate, the equations shown in Env-Wq 1703.24 shall be used. For hardness less than 25 mg/l, a hardness of 25 mg/l shall be used in the equations. For hardness values greater than 400 mg/l, a hardness of 400 mg/l shall be used in the equations.

(g) The letter "g" shall indicate that, if the fresh or marine chronic criteria for total mercury exceeds 0.77 ug/l more than once in a 3-year period in the ambient water, the edible portion of aquatic species of concern shall be analyzed to determine whether the concentration of methyl mercury exceeds the FDA action level of 1.0 mg/kg.

(h) The letter "h" shall indicate that the freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH. Values displayed in Table 1703.1 correspond to a pH value of 6.5. For other pH values, the formulas shown in Env-Wq 1703.32 shall be used.

(i) The letter "i" shall indicate that the values presented for aquatic life protection are dissolved metals and were based on values shown in Table 1703.2. To calculate dissolved fresh water criteria for hardness dependent metals at hardness(s) greater than 25 mg/l, Table 1703.3 shall be used to calculate the total recoverable metal and Table 1703.2 shall be used to convert the total recoverable metal to a dissolved metal.

(j) The letter "j" shall indicate that these human health criteria prevent taste and odor effects in fish and other aquatic life as prohibited in Env-Wq 1703.03(c)(3).

(k) The letter "k" shall indicate that these criteria are based on EPA's 304(a) criteria in the 1980 documents listed below and were derived to be used as instantaneous maximum values, or to be applied after division by 2, to obtain a value comparable to an acute criterion derived using the 1985 Guidelines, when assessment is done using an averaging period:

(1) Aldrin/Dieldrin, document number 440/5-80-019;

(2) Chlordane, document number 440/5-80-027;

(3) DDT, document number 440/5-80-038;

(4) Endosulfan, document number 440/5-80-046;

(5) Endrin, document number 440/5-80-047;

(6) Heptachlor, document number 440/5-80-052;

(7) Hexachlorocyclohexane, document number 440/5-80-054; or

(8) Silver, document number 440/5-80-071.

(l) The letter "1" shall indicate that a more stringent drinking water maximum contaminant level (MCL) has been issued by EPA and the department shall use the MCL if it is more limiting of the 2 criteria. The MCL for chromium is for total chromium (Cr+6 plus Cr+3).

(m) The letter "m" shall indicate that this criteria is expressed as micrograms of free cyanide per liter.

(n) The letter "n" shall indicate that this criteria applies to total PCBs or the sum of all of its congener or isomer analyses.

(o) The letter "o" shall indicate that the freshwater acute criteria for selenium shall be calculated using the values for the fraction f_1 of selenite and f_2 of selenate measured in the receiving water. To calculate the acute criteria, in ug/l, the number 1 shall be divided by the sum of the fractions f_1 divided by 185.9 and f_2 divided by 12.83, as follows:

$$Acute\ \ Criteria\ \ = \frac{1}{\frac{f_1}{185.9} + \frac{f_2}{12.83}}$$

(p) The letter "p" shall indicate that these human health criteria for silver shall be for the protection of humans from argyria.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.23 Conversion Factors For Metals.

(a) Dissolved metal shall be determined by multiplying total recoverable metal by the conversion factor listed in Table 1703.2 for that metal, shown in equation form as follows:

Dissolved Metal = Total Recoverable Metal x Conversion Factor

(b) Total recoverable metals shall be determined by dividing dissolved metals by the conversion factor listed. The conversion factors in Table 1703.2 shall also be used as translators to go from the dissolved metals criteria listed in Table 1703.1 to permit limits expressed as total recoverable metals by dividing dissolved metal by the conversion factor, shown in equation form as follows:

Total Recoverable Metal = Dissolved Metal / Conversion Factor

(c) If the hardness of the receiving water is different than 25 mg/l, then Table 1703.2 shall also be used to calculate the total recoverable metal for freshwater.

(d) Table 1703.2 shall be as follows:

TABLE 1703.2
Factors to Convert Total Recoverable Metals to Dissolved Metals

	FRESHWATER Conversion Factors		**MARINE Conversion Factors**
	Acute	**Chronic**	**Acute & Chronic**
Arsenic	1.0	1.0	1.0
Cadmium	1.136672 - [(Ln Hardness)(0.041838)]	1.101672 - [(Ln Hardness)(0.041838)]	0.994
Chromium (+3)	0.316	0.860	-
Chromium (+6)	0.982	0.962	0.993
Copper	0.960	0.960	0.83
Lead	1.46203 - [(Ln Hardness)(0.145712)]	1.46203 - [(Ln Hardness)(0.145712)]	0.951
Mercury	0.85	0.85	0.85
Nickel	0.998	0.997	0.990
Selenium	-	-	0.998
Silver	0.85	-	0.85
Zinc	0.978	0.986	0.946

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.24 Freshwater Aquatic Life Criteria For Metals.

(a) To calculate freshwater aquatic life criteria for total recoverable metals, the following equations shall be used in conjunction with the coefficients shown in Table 1703.3:

(1) To calculate the acute criteria, in ug/l, for the metals shown Table 1703.3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_a" multiplied by the natural logarithm of the hardness and to which quotient the value "b_a" shall be added, as follows:

$$\text{Acute Criteria} = e^x \text{ where}$$
$$x = (m_a [\ln (\text{hardness})] + b_a)$$

(2) To calculate the chronic criteria, in ug/l, for the metals shown in Table 1703.3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_c" multiplied by the natural logarithm of the hardness and to which quotient the value "b_c" shall be added, as follows:

$$\text{Chronic Criteria} = e^x \text{ where}$$
$$x = (m_c [\ln (\text{hardness})] + b_c$$

TABLE 1703.3
Coefficients in Equations used to calculate Total Recoverable Aquatic Life Criteria for Metals

	m_a	b_a	m_c	b_c
Cadmium	1.0166	-3.924	0.7409	-4.719
Copper	0.9422	-1.700	0.8545	-1.702
Chromium+3	0.8190	3.7256	0.8190	.6848
Lead	1.273	-1.460	1.273	-4.705
Nickel	0.8460	2.255	0.8460	0.0584
Silver	1.72	-6.59	-------	-------
Zinc	0.8473	0.884	0.8473	0.884

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.25 Freshwater Aquatic Life Criteria For Ammonia.

(a) Subject to (b) and (c) below, Table 1703.4A shall be used to calculate freshwater acute aquatic life criteria, in milligrams of nitrogen per liter, for ammonia.

(b) The acute water quality criteria for ammonia in Table 1703.4A where salmonids may be present was calculated by dividing 0.275 by the sum of one plus 10 raised to the power of 7.204 minus the pH, and adding the resulting value to the value found by dividing 39.0 by the sum of one plus 10 raised to the power of the pH minus 7.204, as shown in the following equation, which equation may also be used to calculate criteria at unlisted pH values:

$$\text{Acute Criteria (Salmonids Present)} = \{ [0.275/(1+10^{7.204-pH})] + [39.0/(1+10^{pH-7.204})] \}$$

(c) The acute water quality criteria for ammonia in Table 1703.4A where salmonids are absent was calculated by dividing 0.411 by the sum of one plus 10 raised to the power of 7.204 minus the pH, and adding the resulting value to the value found by dividing 58.4 by the sum of one plus 10 raised to the power of the pH minus 7.204, as shown in the following equation, which equation may also be used to calculate criteria at unlisted pH values:

$$\text{Acute Criteria (Salmonids Absent)} = \{ [0.411/(1+10^{7.204-pH})] + [58.4/(1+10^{pH-7.204})] \}$$

TABLE 1703.4A
Freshwater Acute Aquatic Life Criteria For Ammonia (milligrams N /liter)

pH	Acute Criteria (Salmonids present)	Acute Criteria (Salmonids absent)
6.5	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.1	42.0
6.9	26.2	39.1
7.0	24.1	36.1
7.1	22.0	32.8
7.2	19.7	29.5
7.3	17.5	26.2
7.4	15.4	23.0

7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.65	14.4
7.8	8.11	12.1
7.9	6.77	10.1
8.0	5.62	8.40
8.1	4.64	6.95
8.2	3.83	5.72
8.3	3.15	4.71
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65
8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0	0.885	1.32

(d) Subject to (e) through (h), below, Table 1703.4B and Table 1703.4C shall be used to calculate freshwater chronic aquatic life criteria, in milligrams of nitrogen per liter, for ammonia. The use of Table 1703.4C requires documentation acceptable to the department of the absence of fish early life stages.

(e) The chronic water quality criteria for ammonia in Table 1703.4B where early life stages of fish are present was calculated by adding the value found by dividing 0.0577 by the sum of one plus 10 raised to the power of 7.688 minus the pH to the value found by dividing 2.487 by one plus 10 raised to the power of pH minus 7.688, and multiplying the resulting value by the lesser of 2.85 or the value resulting from multiplying 1.45 by 10 raised to the power of 0.028 times 25 minus the temperature, as shown in the following equation, which may also be used to calculate criteria at unlisted pH and temperature values:

Chronic Criteria (Early life stages of fish Present):

$$\text{Criteria} = [0.0577 / (1+10^{7.688-pH}) + 2.487 / (1+10^{pH-7.688})] \times \text{MIN}\ [2.85, 1.45 \times 10^{0.028 \times (25-T)}]$$

Where MIN indicates the lesser of the two values separated by a comma.

(f) The chronic water quality criteria for ammonia in Table 1703.4C where early life stages of fish are absent was calculated by adding the value found by dividing 0.0577 by the sum of one plus 10 raised to the power of 7.688 minus the pH to the value found by dividing 2.487 by one plus 10 raised to the power of pH minus 7.688, and multiplying the resulting value by the value resulting from multiplying 1.45 by 10 raised to the power of 0.028 times 25 minus the greater of temperature or 7, as shown in the following equation, which may also be used to calculate criteria at unlisted pH and temperature values:

Chronic Criteria (Early life stages of fish Absent):

$$\text{Criteria} = [0.0577 / (1+10^{7.688-pH}) + 2.487 / (1+10^{pH-7.688})] \times 1.45 \times 10^{0.028 \times (25-\text{MAX}(T, 7))}]$$

Where MAX indicates the greater of the two values separated by a comma.

TABLE 1703.4B
Freshwater Chronic Aquatic Life Criteria For Ammonia

Freshwater Chronic Aquatic Life Criteria For Ammonia, milligrams N/liter Early Life Stages of Fish Present										
pH	Temperature, Degrees C									
	0	14	16	18	20	22	24	26	28	30
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

TABLE 1703.4C
Freshwater Chronic Aquatic Life Criteria For Ammonia

Freshwater Chronic Aquatic Life Criteria For Ammonia, milligrams N/liter Early Life Stages of Fish Absent										
pH	Temperature, Degrees C									
	0-7	8	9	10	11	12	13	14	15*	16*
6.5	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46	6.06
6.6	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36	5.97
6.7	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25	5.86
6.8	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10	5.72
6.9	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93	5.56
7.0	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73	5.37
7.1	9.20	8.63	8.09	7.58	7.11	6.67	6.25	5.86	5.49	5.15
7.2	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22	4.90
7.3	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92	4.61

7.4	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59	4.30
7.5	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23	3.97
7.6	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85	3.61
7.7	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47	3.25
7.8	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89
7.9	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71	2.54
8.0	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36	2.21
8.1	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03	1.91
8.2	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74	1.63
8.3	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48	1.39
8.4	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17
8.5	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06	0.990
8.6	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892	0.836
8.7	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754	0.707
8.8	1.07	1.01	0.944	0.885	0.829	0.778	0.729	0.684	0.641	0.601
8.9	0.917	0.860	0.806	0.756	0.709	0.664	0.623	0.584	0.548	0.513
9.0	0.790	0.740	0.694	0.651	0.610	0.572	0.536	0.503	0.471	0.442

(g) The asterisk, *, shall indicate that at 15 Degrees C and above, the criteria for early life stages of fish absent are the same as the criteria for early life stages of fish present.

(h) In addition to (e) and (f), above, the highest 4-day average within a 30-day period shall not exceed 2.5 times the chronic criteria.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.26 Saltwater Acute Aquatic Life Criteria for Ammonia at a Salinity of 10 g/kg. To calculate aquatic life acute saltwater criteria for ammonia, in mg of NH_3 per liter, for a salinity of 10 g/kg, the values shown in Table 1703.5 shall be used.

TABLE 1703.5
Acute Saltwater Aquatic Life Criteria (Salinity of 10 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	270	191	131	92	62	44	29	21
7.2	175	121	83	58	40	27	19	13
7.4	110	77	52	35	25	17	12	8.3
7.6	69	48	33	23	16	11	7.7	5.6
7.8	44	31	21	15	10	7.1	5.0	3.5
8.0	27	19	13	9.4	6.4	4.6	3.1	2.3
8.2	18	12	8.5	5.8	4.2	2.9	2.1	1.5
8.4	11	7.9	5.4	3.7	2.7	1.9	1.4	1.0
8.6	7.3	5.0	3.5	2.5	1.8	1.3	0.98	0.75

8.8	4.6	3.3	2.3	1.7	1.2	0.92	0.71	0.56
9.0	2.9	2.1	1.5	1.1	0.85	0.67	0.52	0.44

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.27 Saltwater Acute Aquatic Life Criteria for Ammonia at a Salinity of 20 g/kg. To calculate aquatic life acute saltwater criteria for ammonia, in mg of NH_3 per liter, for a salinity of 20 g/kg, the values shown in Table 1703.6 shall be used.

TABLE 1703.6
Acute Saltwater Aquatic Life Criteria (Salinity of 20 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	291	200	137	96	64	44	31	21
7.2	183	125	87	60	42	29	20	14
7.4	116	79	54	37	27	18	12	8.7
7.6	73	50	35	23	17	11	7.9	5.6
7.8	46	31	23	15	11	7.5	5.2	3.5
8.0	29	20	14	9.8	6.7	4.8	3.3	2.3
8.2	19	13	8.9	6.2	4.4	3.1	2.1	1.6
8.4	12	8.1	5.6	4.0	2.9	2.0	1.5	1.1
8.6	7.5	5.2	3.7	2.7	1.9	1.4	1.0	0.77
8.8	4.8	3.3	2.5	1.7	1.3	0.94	0.73	0.56
9.0	3.1	2.3	1.6	1.2	0.87	0.69	0.54	0.44

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.28 Saltwater Acute Aquatic Life Criteria for Ammonia at a Salinity of 30 g/kg. To calculate aquatic life acute saltwater criteria for ammonia, in mg of NH_3 per liter, for a salinity of 30 g/kg, the values shown in Table 1703.7 shall be used.

TABLE 1703.7
Acute Saltwater Aquatic Life Criteria (Salinity of 30 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	312	208	148	102	71	48	33	23
7.2	196	135	94	64	44	31	21	15
7.4	125	85	58	40	27	19	13	9.4
7.6	79	54	37	25	21	12	8.5	6.0
7.8	50	33	23	16	11	7.9	5.4	3.7
8.0	31	21	15	10	7.3	5.0	3.5	2.5
8.2	20	14	9.6	6.7	4.6	3.3	2.3	1.7
8.4	12.7	8.7	6.0	4.2	2.9	2.1	1.6	1.1

8.6	8.1	5.6	4.0	2.7	2.0	1.4	1.1	0.81
8.8	5.2	3.5	2.5	1.8	1.3	1.0	0.75	0.58
9.0	3.3	2.3	1.7	1.2	0.94	0.71	0.56	0.46

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.29 Saltwater Chronic Aquatic Life Criteria for Ammonia at a Salinity of 10 g/kg. To calculate aquatic life chronic saltwater criteria, in mg of NH_3 per liter, for ammonia, for a salinity of 10 g/kg, the values shown in Tables 1703.8 shall be used.

TABLE 1703.8
Chronic Saltwater Aquatic Life Criteria (Salinity of 10 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	41	29	20	14	9.4	6.6	4.4	3.1
7.2	26	18	12	8.7	5.9	4.1	2.8	2.0
7.4	17	12	7.8	5.3	3.7	2.6	1.8	1.2
7.6	10	7.2	5.0	3.4	2.4	1.7	1.2	0.84
7.8	6.6	4.7	3.1	2.2	1.5	1.1	0.75	0.53
8.0	4.1	2.9	2.0	1.40	0.97	0.69	0.47	0.34
8.2	2.7	1.8	1.3	0.87	0.62	0.44	0.31	0.23
8.4	1.7	1.2	0.81	0.56	0.41	0.29	0.21	0.16
8.6	1.1	0.75	0.53	0.37	0.27	0.20	0.15	0.11
8.8	0.69	0.50	0.34	0.25	0.18	0.14	0.11	0.08
9.0	0.44	0.31	0.23	0.17	0.13	0.10	0.08	0.07

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.30 Saltwater Chronic Aquatic Life Criteria for Ammonia at a Salinity of 20 g/kg. To calculate aquatic life chronic saltwater criteria, in mg of NH_3 per liter, for ammonia, for a salinity of 20 g/kg, the values shown in Table 1703.9 shall be used.

TABLE 1703.9
Chronic Saltwater Aquatic Life Criteria (Salinity of 20 g/kg)

PH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	44	30	21	14	9.7	6.6	4.7	3.1
7.2	27	19	13	9.0	6.2	4.4	3.0	2.1
7.4	18	12	8.1	5.6	4.1	2.7	1.9	1.3
7.6	11	7.5	5.3	3.4	2.5	1.7	1.2	0.84
7.8	6.9	4.7	3.4	2.3	1.6	1.1	0.78	0.53
8.0	4.4	3.0	2.1	1.5	1.0	0.72	0.50	0.34
8.2	2.8	1.9	1.3	.94	.66	.47	.31	.24
8.4	1.8	1.2	.84	.59	.44	.30	.22	.16

8.6	1.1	.78	.56	.41	.28	.20	.15	.12
8.8	.72	.50	.37	.26	.19	.14	.11	.08
9.0	.47	.34	.24	.18	.13	.10	.08	.07

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.31 Saltwater Chronic Aquatic Life Criteria for Ammonia at a Salinity of 30g/kg. To calculate aquatic life chronic saltwater criteria, in mg of NH_3 per liter, for ammonia, for a salinity of 30 g/kg, the values shown in Table 1703.10 shall be used.

TABLE 1703.10
Chronic Saltwater Aquatic Life Criteria (Salinity of 30 g/kg)

pH	**TEMPERATURE (°C)**							
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**
7.0	47	31	22	15	11	7.2	5.0	3.4
7.2	29	20	14	9.7	6.6	4.7	3.1	2.2
7.4	19	13	8.7	5.9	4.1	2.9	2.0	1.4
7.6	12	8.1	5.6	3.7	3.1	1.8	1.3	0.90
7.8	7.5	5.0	3.4	2.4	1.7	1.2	0.81	0.56
8.0	4.7	3.1	2.2	1.6	1.1	0.75	0.53	0.37
8.2	3.0	2.1	1.4	1.0	0.69	0.50	0.34	0.25
8.4	1.9	1.3	0.90	0.62	0.44	0.31	0.23	0.17
8.6	1.2	0.84	0.59	0.41	0.30	0.22	0.16	0.12
8.8	0.78	0.53	0.37	0.27	0.20	0.15	0.11	0.09
9.0	0.50	0.34	0.26	0.19	0.14	0.11	0.08	0.07

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1703.32 Aquatic Life Criteria for Pentachlorophenol.

(a) To calculate the freshwater aquatic life acute criteria, in ug/l, for pentachlorophenol, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression 1.005 multiplied by the pH and to which quotient the value of 4.869 shall be subtracted, as follows:

$$\text{Acute Criteria} = e^{x} \text{ where}$$
$$x = [\ 1.005\ (\text{pH}) - 4.869\ ]$$

(b) To calculate the freshwater aquatic life chronic criteria, in ug/l, for pentachlorophenol, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression 1.005 multiplied by the pH and to which quotient the value of 5.134 shall be subtracted, as follows:

$$\text{Chronic Criteria} = e^{x} \text{ where}$$
$$x = [\ 1.005\ (pH) - 5.134\ ]$$

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

PART Env-Wq 1704 ALTERNATIVE SITE SPECIFIC CRITERIA

Env-Wq 1704.01 Purpose. The purpose of this part is to develop a procedure for determining alternative site specific criteria in the following cases:

(a) For toxic substances not listed in Env-Wq 1703.21 through Env-Wq 1703.32;

(b) Where site specific information is available which substantiates the use of different criteria; or

(c) Where new information, not considered in the development of the criteria, is available.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1704.02 Procedures.

(a) The procedure for determining alternative site specific criteria for the protection of human health shall be in accordance with EPA's draft "Guidance on Assessment and Control of Bioconcentratable Contaminants in Surface Waters" dated March 1991, and EPA's "Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health," EPA 822-B-00-004, dated October 2000.

(b) The procedure for determining alternative site specific criteria for protection of aquatic life shall be as published in EPA's "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals" (EPA-823-B-94-001). For copper, the "Streamlined Water-Effect Ratio procedure for Discharges of Copper", EPA-822-R-01-005, or the Biotic Ligand Model (freshwater only), EPA-822-R-07-001, may also be used.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1704.03 Modifications. If, based on the scientifically valid documentation presented by the applicant, the department determines that the proposed site specific criteria will protect the existing and designated uses of the waterbody, then the values obtained by those procedures for the protection of human health or aquatic life shall be formally incorporated into the state's water quality standards in subsequent amendments to these rules.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

PART Env-Wq 1705 FLOW STANDARDS

Env-Wq 1705.01 Assimilative Capacity. Except for combined sewer overflows where 99 percent of the assimilative capacity shall be used to determine compliance, not less than 10 percent of the assimilative capacity of the surface water shall be held in reserve to provide for future needs.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1705.02 Low Flow Conditions.

(a) The flow used to calculate permit limits shall be as specified in (b) through (d), below.

(b) For rivers and streams, the long-term harmonic mean flow, which is the number of daily flow measurements divided by the sum of the reciprocals of the daily flows, shall be used to develop permit limits for all human health criteria for carcinogens.

(c) For tidal waters, the low flow condition shall be equivalent to the conditions that result in a dilution that is exceeded 99% of the time.

(d) For rivers and streams, the 7Q10 flow shall be used to apply aquatic life criteria and human health criteria for non-carcinogens.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

PART Env-Wq 1706 SAMPLING AND ANALYSIS

Env-Wq 1706.01 Procedure. All procedures used for the purpose of collecting, preserving and analyzing samples shall be in conformance with 40 CFR Part 136 for wastewater and 40 CFR Part 141 for drinking water unless alternative procedures are specified in the surface water discharge permit.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

PART Env-Wq 1707 MIXING ZONES

Env-Wq 1707.01 Designation.

(a) Mixing zones shall be prohibited in Class A waters.

(b) For Class B waters, the department shall designate a limited area or volume of the surface water as a mixing zone if the applicant provides sufficient scientifically valid documentation to allow the department to independently determine that all criteria in Env-Wq 1707.02 have been met.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1707.02 Minimum Criteria. Mixing zones shall be subject to site specific criteria that, as a minimum:

(a) Meet the criteria in Env-Wq 1703.03(c)(1);

(b) Do not interfere with biological communities or populations of indigenous species;

(c) Do not result in the accumulation of pollutants in the sediments or biota;

(d) Allow a zone of passage for swimming and drifting organisms;

(e) Do not interfere with existing and designated uses of the surface water;

(f) Do not impinge upon spawning grounds and/or nursery areas of any indigenous aquatic species;

(g) Do not result in the mortality of any plants, animals, humans, or aquatic life within the mixing zone;

(h) Do not exceed the chronic toxicity value of 1.0 TUc at the mixing zone boundary; and

(i) Do not result in an overlap with another mixing zone.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1707.03 Technical Standards. Mixing zones shall be established in accordance with the procedures delineated in the "Technical Support Document for Water Quality-based Toxics Control" EPA/505/2-90-001, dated March 1991.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

PART Env-Wq 1708 ANTIDEGRADATION

Env-Wq 1708.01 Purpose. The purpose of these antidegradation provisions is to ensure that the following provisions of 40 CFR 131.12 are met:

(a) Existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected;

(b) For significant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the department finds, after full satisfaction of the intergovernmental coordination and public participation provisions that, in accordance with Env-Wq 1708.10, allowing lower water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing such degradation or lower water quality, the department shall assure water quality adequate to fully protect existing uses. Further, the department shall assure that the highest statutory and regulatory requirements shall be achieved for all new and existing point

sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented;

(c) For insignificant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected. In allowing such degradation or lower water quality, the department shall assure water quality adequate to protect existing uses fully. Further, the department shall assure that the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented;

(d) Where high quality surface waters constitute an outstanding resource waters (ORW), that water quality shall be maintained and protected; and

(e) In those cases where a potential water quality impairment is associated with a thermal discharge, the antidegradation provisions shall ensure that the requirements of section 316 of the Clean Water Act are met.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.02 Applicability. Antidegradation shall apply to:

(a) Any proposed new or increased activity, including point source and nonpoint source discharges of pollutants, that would lower water quality or affect the existing or designated uses;

(b) Any proposed increase in loadings to a waterbody when the proposal is associated with existing activities;

(c) Any increase in flow alteration over an existing alteration; and

(d) Any hydrologic modifications, such as dam construction and water withdrawals.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.03 Submittal of Data. The applicant shall provide all information necessary to:

(a) Identify all existing uses, including:

(1) Freshwater, estuarine, and marine aquatic life present in the affected surface waters;

(2) Other wildlife that use or are dependent on the affected surface waters;

(3) Presence of water quality and physical habitat that support, or would support, aquatic life or other animal or plant life;

(4) Presence of indigenous species and communities;

(5) Presence of a specialized use of the waterbody, such as a spawning area or as a habitat for a federally or state listed threatened or endangered species;

(6) Use of the surface waters for recreation in or on the water, such as fishing, swimming, and boating, or use of the surface waters for commercial activity; and

(7) Whether or not current conditions or uses of the surface waters conflict with achieving and maintaining goal uses of the CWA at Section 101(a)(2) and the primary CWA objective to restore and maintain the chemical, physical, and biological integrity of the nation's surface waters;

(b) Determine the level of water quality necessary to maintain and protect those uses;

(c) Evaluate the potential impacts on existing uses due to the proposed discharge or activity by itself, and in combination with other discharges or activities presently occurring;

(d) Ensure that existing uses and the level of water quality necessary to protect those uses shall be maintained and protected.

(e) Evaluate the magnitude, duration, and upstream and downstream extent of any lowering of high quality water due to the proposed discharge or activity by itself, and in combination with other discharges or activities presently occurring;

(f) Evaluate other factors as necessary to determine whether the proposed activity would cause significant or insignificant degradation, in accordance with Env-Wq 1708.09;

(g) If the discharge or activity is determined by the department to be significant, in accordance with Env-Wq 1708.08 and Env-Wq 1708.09, determine if a proposed lowering of water quality is necessary to achieve important economic or social development in accordance with Env-Wq 1708.10; and

(h) Ensure that all water quality criteria applicable to the waterbody in question shall not be violated.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.04 Protection of Existing Uses.

(a) This section shall apply to all surface waters.

(b) A proposed discharge or activity shall not eliminate any existing uses or the water quality needed to maintain and protect those uses.

(c) Using the information provided at Env-Wq 1708.03, the department shall determine the existing uses for the waters in question.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.05 Protection of Water Quality in ORW.

(a) Surface waters of national forests and surface waters designated as natural under RSA 483:7-a, I, shall be considered outstanding resource waters (ORW).

(b) Water quality shall be maintained and protected in surface waters that constitute ORW, except that some limited point and nonpoint source discharges may be allowed providing that they are of limited activity

which results in no more than temporary and short-term changes in water quality. "Temporary and short term" means that degradation is limited to the shortest possible time. Such activities shall not permanently degrade water quality or result at any time in water quality lower than that necessary to protect the existing and designated uses in the ORW. Such temporary and short term degradation shall only be allowed after all practical means of minimizing such degradation are implemented.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.06 Protection of Class A Waters.

(a) In accordance with RSA 485-A:8, I, discharges of sewage or waste to Class A waters shall be prohibited.

(b) Proposed new or increased activities that the department determines do not involve the discharge of sewage or waste shall be reviewed in accordance with Env-Wq 1708.01 through Env-Wq 1708.12.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.07 Protection of Water Quality in High Quality Waters.

(a) Subject to (b), below, high quality waters shall be maintained and protected, except that insignificant changes in water quality, as determined by the department in accordance with Env-Wq 1708.09, shall be allowed.

(b) Degradation of significant increments of water quality, as determined in accordance with Env-Wq 1708.09, in high quality waters shall be allowed only if it can be demonstrated to the department, in accordance with Env-Wq 1708.10, that allowing the water quality degradation is necessary to accommodate important economic or social development in the area in which the receiving waters are located.

(c) Economic/social benefits demonstration and alternatives analysis shall not be required for authorization of an insignificant lowering of water quality. However, in allowing a lowering of water quality, significant or insignificant, all reasonable measures to minimize degradation shall be used.

(d) If the waterbody is Class A Water, the requirements of Env-Wq 1708.06 shall also apply.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.08 Assessing Waterbodies.

(a) The applicant shall characterize the existing water quality and determine if there is remaining assimilative capacity for each parameter in question.

(b) Existing water quality shall be calculated in accordance with Env-Wq 1705.02. Existing water quality shall be established based on point sources discharging at their allowed loadings and the highest loadings anticipated from nonpoint sources.

(c) Where flow alteration is involved, establishment of existing conditions shall be based on the existing maximum allowed water withdrawals or impoundment, diversion, or fluctuation of stream flow, as appropriate.

(d) Remaining assimilative capacity shall be evaluated by comparing existing water quality, as specified in (b) and (c), above, to the state's water quality criteria.

(e) If the type and frequency of the proposed discharge or activity causes the waterbody to be impacted at flows other than those listed in Env-Wq 1705.02, the department shall require the applicant to evaluate the impact of the proposed discharge at those other flows.

(f) Subject to (h), below, if the department determines, based on the information submitted, that there is no remaining assimilative capacity, no further degradation with regard to that parameter shall be allowed.

(g) Subject to (h), below, if the department determines, based on the information submitted, that there is some remaining assimilative capacity, then the department shall proceed in accord with Env-Wq 1708.09.

(h) The above determinations shall take into account Env-Wq 1705.01 which requires the department to reserve no less than 10% of a surface water's assimilative capacity.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.09 Significant or Insignificant Determination.

(a) Any discharge or activity that is projected to use 20% or more of the remaining assimilative capacity for a water quality parameter, in terms of either concentration or mass of pollutants, or volume or flow rate for water quantity, shall be considered a significant lowering of water quality. The department shall not approve such a discharge or activity unless the applicant demonstrates that the proposed lowering of water quality is necessary to achieve important economic or social development, in accordance with Env-Wq 1708.10, in the area where the waterbody is located.

(b) Subject to (d), below, those activities that cause an insignificant lowering of water quality shall not be required to demonstrate that they are necessary to provide important economic or social development.

(c) Activities under (b), above shall include, but not be limited to:

(1) Short term or intermittent discharges such as hydrostatic testing of pipelines, fire pump test water, and uncontaminated stormwater discharges or site clean-up activities;

(2) Permanent discharges such as uncontaminated noncontact or uncontaminated geothermal cooling water, uncontaminated groundwater seepage, or unchlorinated or dechlorinated swimming pool water;

(3) Facilities whose nonpoint source runoff is controlled through the use of best management practices; and

(4) Any discharge or activity that is projected to use less than 20% of the remaining assimilative capacity for a water quality parameter, in terms of either concentration or mass for pollutants.

(d) If the department determines that, because of the following factors, the effect of a discharge results in a greater impact to the water quality than that normally found in insignificant discharges, it shall determine that the proposed activity or discharge is significant, regardless of the proposed consumption of the remaining

assimilative capacity, and require the applicant to demonstrate, in accordance with Env-Wq 1708.10, that a lowering of water quality is necessary to achieve an important economic or social development:

(1) The magnitude, duration, and spatial extent of the proposed change in water quality;

(2) The cumulative lowering of water quality over time resulting from the proposed activity in combination with previously approved activities;

(3) The possible additive or synergistic effects of the activity in combination with existing activities;

(4) The magnitude of the mass load independent of the total assimilative capacity or change in receiving water pollutant concentration;

(5) The toxic or bioaccumulative characteristics of the pollutant(s) in question;

(6) The potential to stress sensitive biological resources such as indigenous species, rare species, and threatened or endangered species and their habitat;

(7) The potential to stress sensitive recreational uses or water supply uses; or

(8) The quality and value of the resource.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.10 Alternatives Analysis; Determination of Net Economic or Social Benefits.

(a) For purposes of this section, the following definitions shall apply:

(1) "Activity" means any of the activities listed in Env-Wq 1708.02 as being subject to this part, including all associated construction;

(2) "Area in which the water body is located" means the directly affected municipality(ies) and, if necessary to quantify the net social and economic benefits of the activity, one or more of the municipalities that abut the directly affected municipality(ies), as determined by the applicant in consultation with the department;

(3) "Directly affected municipality(ies)" means the municipality or municipalities in which the water body that will be impacted by the activity is located; and

(4) "High value resource" means a natural or developed resource that is of particular value to the nation, region, state, or area in which the water body is located, including but not limited to state- or federally-listed threatened or endangered species, state or federal parks, public freshwater or saltwater beaches, and lands that are subject to conservation easements.

(b) For any activity that is determined to result in a significant impact to the existing water quality pursuant to Env-Wq 1708.09, the applicant shall provide documentation in accordance with (c) through (f), below, to demonstrate that:

(1) Lowering the water quality is necessary to accommodate the activity;

(2) The activity will provide net economic or social benefits in the area in which the water body is located; and

(3) The net social and economic benefits of constructing and operating or otherwise engaging in the activity outweigh the environmental impact that could be caused by the lower water quality.

(c) To determine whether the criteria specified in (b)(1)-(3), above, have been met, the applicant shall complete an alternatives analysis as described in (d), below, and submit the analysis and a request for approval of the preferred alternative to the department together with technically and scientifically valid supporting information.

(d) The alternatives analysis required by (c), above, shall describe the net social and economic benefits, as described in (e), below, and the water quality impacts, as described in (f), below, of constructing and operating or otherwise engaging in the activity and all practicable alternatives, including but not limited to the following:

(1) Alternative methods of production or operation;

(2) Improved process controls;

(3) Water conservation practices;

(4) Wastewater minimization technologies;

(5) Non-discharging alternatives;

(6) Improved wastewater treatment facility operation;

(7) Alternative methods of treatment, including advanced treatment beyond applicable technology requirements of the Clean Water Act;

(8) Alternative sites, and associated water quality impacts at those sites; and

(9) For activities that involve alteration of terrain, alternative site design that incorporates low impact development elements, including but not limited to creating less impermeable area or infiltrating or reusing stormwater.

(e) To determine if the activity will provide net social and economic benefits in the area in which the water body is located, the applicant shall submit information on, and the department shall evaluate, each of the following:

(1) Whether the activity is consistent with municipal and regional master plans and economic development strategies; and

(2) An explanation of the effect that constructing and operating or otherwise engaging in the activity will have, or an explanation of why there will be no effect, on the following factors:

a. Public and social services;

b. Public health and safety;

c. Employment;

d. Tourism and recreation; and

e. Other social or economic factors that are specific to the area in which the water body is located.

(f) To determine the environmental impacts of lower water quality, the applicant shall submit information on, and the department shall evaluate, each of the following:

(1) Relative to designated uses, the sensitivity of existing and designated uses to the effects of constructing and operating or otherwise engaging in of the activity;

(2) Relative to pollutants, whether any pollutants are expected to be discharged as a result of constructing and operating or otherwise engaging in the activity and, if so, the nature of the pollutants and the anticipated fate and transport of the pollutants in the water body;

(3) Relative to water quality, whether water quality is expected to change as a result of constructing and operating or otherwise engaging in activity, and if so, the estimated degree of change in water quality;

(4) Relative to high value resources, whether any high value resources are present that would be affected by constructing and operating or otherwise engaging in the activity, and if so, the degree to which such resources are expected to be affected;

(5) Relative to flow characteristics or hydrologic modifications, whether any alterations to existing flows or other hydrologic modifications are expected as a result of constructing and operating or otherwise engaging in the proposed activity, and if so, the impacts of such alterations or modifications;

(6) Relative to water treatment technology, whether the activity incorporates any such technology other than passive stormwater treatment best management practices and, if so, the reliability of the treatment technology proposed, and the risk management plan for non-standard situations such as accidents, upsets, or failures; and

(7) Relative to any other factors that are specific to the affected water body or the area in which the water body is located, a description of the factor and an explanation of the effect of constructing and operating or otherwise engaging in the proposed activity on that factor.

(g) After reviewing the information submitted pursuant to (c) through (f), above, the department shall make a preliminary determination to:

(1) Approve the request, if it determines that the criteria specified in (b)(1)-(3), above, have been met; or

(2) Deny the request, if it determines that the criteria specified in (b)(1)-(3), above, have not been met.

(h) If the department's preliminary determination is to approve the applicant's request, the department shall provide the opportunity for public comment on its preliminary decision in accordance with Env-Wq 1708.11.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700); ss by #9984, eff 8-23-11

Env-Wq 1708.11 Public Participation and Intergovernmental Coordination.

(a) The department shall provide the opportunity for public comment on preliminary decisions to allow any lowering of water quality.

(b) The department shall issue a written notice to the public, the municipality in which the activity is located or proposed to be located and all potentially affected municipalities. The notice shall invite written comments to be submitted to the department and shall provide an opportunity to request a public hearing. For activities related to state surface water discharge permits, this public notice shall be a part of the normal public participation procedures associated with the issuance of the permit.

(c) The notice shall be published in a newspaper of general circulation in the municipality where the proposed activity will occur and shall include the following information:

(1) A description of the proposed activity;

(2) A description of the surface waters involved and their use classification;

(3) A statement of the department's antidegradation provisions;

(4) A determination that existing uses and necessary water quality will be maintained and protected;

(5) A summary of the expected impacts on high quality waters;

(6) A determination that where a lowering of water quality is allowed, all applicable water quality criteria shall be met, designated uses protected, and any higher water quality achievable by the most stringent applicable technology-based requirements shall be maintained;

(7) A discussion of any other information that is relevant to how the activity complies or does not comply with these provisions;

(8) The summary of the important economic or social development, if applicable;

(9) A summary of the alternatives analysis and a finding that the lowering of water quality is necessary; and

(10) The name, address, and telephone number of the person in the department where all written comments or requests for public hearing can be sent.

(d) To fulfill intergovernmental coordination, the department shall submit a copy of the public notice to the following agencies and request comments:

(1) NH department of resources and economic development;

(2) NH department of health and human services;

(3) NH fish and game department;

(4) NH office of energy and planning;

(5) US EPA Region I;

(6) US Army Corps of Engineers;

(7) US Fish and Wildlife Service;

(8) National Marine Fisheries Service;

(9) Local river advisory committees, if applicable;

(10) National Park Service; and

(11) Natural Resources Conservation Service.

(e) The department shall respond to all comments received as a result of public participation and intergovernmental coordination. If a request to hold a public hearing is received, the department shall hold a public hearing in accordance with the provisions of Env-C 200 that apply to non-adjudicative proceedings.

(f) Following this public participation process, the department shall, based on any further information submitted during the public hearing, make a final decision to allow or deny the proposed impact on water quality. If the application is denied, the applicant may revise the submittal to decrease or eliminate the projected impact to high quality waters and resubmit the application for consideration under the full review process.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

Env-Wq 1708.12 Transfer of Water.

(a) In this section, "transfer" means the intentional conveyance of water from one surface water to another surface water for the purpose of increasing the volume of water available for withdrawal from the receiving surface water. The term does not include the transfer of stormwater, for the purpose of managing stormwater during construction, between basins created or otherwise lawfully used for stormwater detention or treatment, or both, and does not include the discharge of stormwater from a detention or treatment basin to a surface water.

(b) A transfer shall be exempt from (c) and (d), below, unless one or more of the following apply:

(1) The transfer was not in active operation prior to the effective date of the 2011 readoption of this section, as determined pursuant to (f) through (i), below;

(2) The transfer is causing or contributing to a violation of surface water quality standards in the source water or receiving water; or

(3) A change that could impact any designated use of the source water or receiving water is made to the transfer on or after the effective date of the 2011 readoption of this section such that a water quality certification is required under RSA 485-A:12, III or IV.

(c) The transfer of water from one surface water to another shall not be allowed unless all of the following conditions are met:

(1) The transferred water does not contain exotic aquatic species or other species of aquatic life that could result in a violation of Env-Wq 1703.19, relative to the integrity of the biological and aquatic community, in the receiving water;

(2) Existing and designated uses will be maintained and supported in the source water and in the receiving water;

(3) The withdrawal from the source water and transfer to the receiving water either:

a. Will not result in any degradation of water quality; or

b. Have both been reviewed under the process specified in Env-Wq 1708.10 and determined by the department to meet the criteria specified for approval in Env-Wq 1708.10(b)(1)-(3); and

(4) A water conservation plan that meets the water conservation requirements set forth in Env-Wq 2101 has been approved by the department and is being complied with.

(d) Transferred water may be treated to comply with the requirements of this section.

(e) If a transfer is exempt under (b), above, or if all of the conditions specified in (c), above, are met, the transfer of water shall not constitute a discharge under RSA 485-A:8, I, or RSA 485-A:13, I(a).

(f) A transfer shall be deemed to have been in active operation prior to the effective date of the 2011 readoption of this section if all of the following are true:

(1) The infrastructure necessary for the transfer is in place and in usable condition;

(2) Water has been transferred for at least one day in each of at least 3 years from 2000 through 2011; and

(3) At the time of its original initiation, the transfer complied with applicable legal requirements.

(g) If a transfer does not meet the conditions specified in (f), above, the person responsible for the transfer may request the department to make a determination that the transfer was in active operation by submitting the following information in writing:

(1) The reason(s) why the infrastructure necessary for the transfer is not in place or is not in usable condition, if applicable;

(2) The total time span, in years, over which the transfer has occurred from the first known transfer to the present;

(3) The most recent year during which the transfer occurred; and

(4) Why, based on the information provided in (1)-(3), above, it would be a fair and just result for the department to determine that the transfer qualifies as a transfer that was in active operation prior to the effective date of the 2011 readoption of this section.

(h) If the department determines, based on information provided pursuant to (g), above, that it would be fair and just to determine that the transfer qualifies as a transfer that was in active operation prior to the effective date of the 2011 readoption of this section, then the department shall make that determination.

(i) The department shall notify the person who requested a determination pursuant to (g), above, in writing of its decision.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700); ss by #9984, eff 8-23-11

PART Env-Wq 1709 REMOVAL OF DESIGNATED USES

Env-Wq 1709.01 Requirements.

(a) Before requesting that the state legislature remove a designated use, the department shall conduct a use attainability analysis in accord with 40 CFR Part 131.

(b) Based on the information provided in (a), above, the department may propose to the state legislature, after public notice and comment, that a designated use which is not an existing use be removed or that subcategories of a use be established when attaining the designated use is not feasible because:

(1) Naturally occurring substance concentrations prevent the attainment of the use;

(2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions can be compensated by the discharge of sufficient volume of effluent discharges without violating state water conservation requirements to enable uses to be met;

(3) Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;

(4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use;

(5) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, unrelated to water quality, preclude attainment of aquatic life protection uses; or

(6) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread negative economic and social impact, as determined using the provisions delineated in "Interim Economic Guidance for Water Quality Standards", EPA-823-B-95-002, dated March, 1995.

Source. (See Revision Note #1 at chapter heading for Env-Wq 1700) #7151, eff 12-10-99; ss by #9034, INTERIM, eff 12-10-07; ss by #9162, eff 5-21-08 (See Revision Note #2 at chapter heading for Env-Wq 1700)

APPENDIX

Rule Section(s)	**State Statute or Federal Statute or Regulation Implemented**
Env-Wq 1701	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1702	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1703	RSA 485-A:6, I; RSA 485-A:8, I, II and III; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1704	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1705	RSA 485-A:6, I; RSA 485-A:6, VII; RSA 485-A:8, VI; RSA 485-A:13, I(a); Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1706	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1707	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1708	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*
Env-Wq 1709	RSA 485-A:6, I; RSA 485-A:8, VI; Clean Water Act, 33 U.S.C. 1251 *et seq*

Exhibit 5A

Exhibit 5A

STATE OF NEW HAMPSHIRE

INTER-DEPARTMENT COMMUNICATION

FROM Robert H. Estabrook
Chief Aquatic Biologist

Date March 14, 2008

SUBJECT Public Hearing on rule re-adoption w/ amendment for Env-Wq 1700 Surface Water Quality Standards rules

AT(OFFICE)
Dept. of Environmental Services
Water Division/Watershed Management Bureau

TO File

1. A public hearing was held in the auditorium of the DES offices at 29 Hazen Drive in Concord from 9:00 am to 12:00 noon for the subject rules.
2. No one from the public showed to comment on the rules.
3. Staff was present in the lobby to sign in people. In the auditorium, a tape recorder was present, copies of the rules were available, a sign-in sheet was available, an opening statement was prepared and staff remained for the entire 9:00 to 12:00 duration.
4. Since no one showed to testify, no recording was made. This memo is to document that the requirements of the public hearing were carried out.

Exhibit 5A

From: beckwith.william@epamail.epa.gov
Sent: Monday, March 24, 2008 1:31 PM
To: Estabrook, Robert
Subject: Fw: Proposed Revisions to NH's WQS, Env-Wq 1700 (Dated 1/10/08)

-----Forwarded by William Beckwith/R1/USEPA/US on 03/24/2008 01:28PM -----

To: "Currier, Paul M." <Paul.Currier@des.nh.gov>, Robert.Estabrook@des.nh.gov
From: William Beckwith/R1/USEPA/US
Date: 03/24/2008 01:26PM
cc: Stephen Silva/R1/USEPA/US@EPA, Ann Williams/R1/USEPA/US@EPA, Alfred Basile/R1/USEPA/US@EPA, vernon_lang@fws.gov, Mary.A.Colligan@noaa.gov, peter.colosi@noaa.gov
Subject: Proposed Revisions to NH's WQS, Env-Wq 1700 (Dated 1/10/08)

Hello Paul and Bob - After sending comments on 2/20/08 we realized that the proposed water quality standards revisions published for public comment did include some changes with regard to toxic pollutants. Therefore we are sending some additional comments. The comments of 2/20/08 are included as well, reformatted to reflect the actual proposal. Please consider these as you move forward to finalize the revisions.

1) wetlands definition, p. 5: Normally a definition that says "including [whatever]" means "including but not limited to." But here, DES proposes to delete the explicit language "but not limited to." This raises the question of whether DES intends to limit the definition of wetlands to just the types specifically listed. That would be a concern if it narrowed the extent to which NH's WQS are applicable to wetlands within NH that are waters of the US. Please explain the purpose and meaning of this draft revision.

2) The proposed new turbidity provision at Env-Wq 1703.11(d), page 8, i.e., ***"For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge plume, a violation of the turbidity standard shall be deemed to have occurred."*** : Introduction of a separate interpretation for enforcement creates confusion as to the meaning of the underlying criteria otherwise applicable at Env-Wq 1703.11(a), (b), and (c). To the extent that NH may feel that the suggested provision is necessary, it would be better used as an enforcement discretion policy, and not included in the WQS.
3) Inclusion of EPA's Streamlined WER guidance and the BLM for adjusting copper criteria (pages 15 and 26): Inclusion of EPA's guidance "Streamlined Water-Effect Ratio Procedure for Discharges of Copper" is proposed. We suggest that DES include a statement that "the Department may require more than the two WERs prescribed in the method as necessary to characterize variability and ensure protection of aquatic life uses." There are some difficult issues with WER development that the streamlined guidance attempts to address in an appropriate way; however, we are concerned that the average of the results for two samples/WERs representing a single instream condition may not be adequate to ensure that site-specific criteria will be protective. The "Interim" WER guidance and the BLM are more rigorous in that regard.

4) Revision of the freshwater ammonia criteria to EPA's "1999 Update," page 18:
- A provision of EPA's 1999 freshwater ammonia criteria, i.e., "The highest four day average within a thirty day period is not to exceed 2.5 times the CCC," is omitted. We note that the duration and frequency components that are to accompany the magnitude components are not stated either. Presuming DES's intent is to use EPA's guidance with regard to duration and frequency for freshwater ammonia (i.e., the 1 hour average for acute and 30 day average for chronic, and the frequency component that these durations not be exceeded more that once every three years on average), the omitted provision should be adopted. The omitted provision would not be necessary if the intent is to apply the magnitudes (criterion maximum

concentration (CMC) for acute and criterion continuous concentration (CCC) for chronic) as instantaneous values not to be exceeded.

- We support the statement at Env-Ws 1703.25(d) requiring adequate information to document use of the early life stages absent values. The importance of adequate and reliable information for this purpose was emphasized in the federal register notice announcing availability of the freshwater ammonia criteria 1999 update (64 FR 71973-71980).
- Notwithstanding the above comments concerning adoption of EPA's 1999 freshwater ammonia criteria guidance, recent research indicates that mussels may be more sensitive to ammonia than the organisms included in the data set for EPA's 1999 ammonia criteria revision. EPA's 1999 chronic criteria guidance for ammonia is less stringent than EPA's 1998 chronic criteria (that are currently in New Hampshire's water quality standards) at pH and temperature conditions most common to New Hampshire's waters, particularly at colder temperatures. We encourage DES to carefully consider this prior finalizing revisions to its standards.

5) existing use, deletion of "instream" at p. 28 & throughout the antidegradation section. Though "instream" is consistent with the federal existing use language, the revision might be acceptable. We would like to understand DES's thought on the issue before making a determination. Please explain the purpose and meaning of this draft revision.

Thank you for the opportunity to comment. Please contact me if you have any questions.

Thanks - Bill
Bill Beckwith
Water Quality Standards Coordinator
617-918-1544

Exhibit 5B

Final – Approved 6/9/11

Exhibit 5B

Water Quality Standards Advisory Committee

MEETING MINUTES

Thursday, April 14, 2011 1:30 pm – 3:30 pm
Department of Environmental Services
Rooms 112/113/114
29 Hazen Drive, Concord, NH

WQSAC Members Present

Name	Representing	Present	Alternate Present
Dan Blais	Home Builders and Remodelers' Association of NH		
Steve Clifton	Consulting Engineers of NH		
Sam Demeritt	NH Wildlife Federation	Y	
Steve Densberger	Water Council		
Diane Hanley	NH Association of Conservation Commissions and Lakes Management Advisory Committee		
Donna Hanscom	NH Water Pollution Control Association		
John Hodsdon	NH Farm Bureau Federation	Y	
Melissa Hoffer	Conservation Law Foundation		
Kenneth Kimball	Appalachian Mountain Club		
Tracy LaChance	Business and Industry Association	Y	
John Magee	NH Fish & Game Department	Y	
William McDowell	University of New Hampshire		
Mike Metcalf	NH Water Works Association	Y	
Eileen Miller	NH Association of Conservation Districts	Y	
Larry Morse	NH Association of Natural Resource Scientists		
Allan Palmer	Rivers Management Advisory Committee	Y	
Kenneth Rhodes	Associated General Contractors of NH	Y	
Peter Rice	NH Municipal Association		
Dari Sassan	Office of State Planning		
William Schroeder	NH Lakes Association	Y	
Jasen Stock	NH Timberland Owners Association		
Ken Toppin	US Geological Survey		
Michele Tremblay	NH Rivers Council		
John Warner	US Fish & Wildlife Service		
Ellen Weitzler	EPA Region I		

Additional Meeting Attendees

Jason Smith (NH Fish and Game)
Philip Trowbridge (DES)
Paul Currier (DES)
Lisa Fortier (DES)
Shane Csiki (NHGS)
Brandon Kernen (DES)
Gary Abbott (AGC)
Ted Walsh (DES)
Phil Bilodeau (City of Concord)
Steve DelDeo (NHWWA)
Don Ware (Pennichuck)
Derek Durbin (NH Lakes)
Peter Goodwin
Rick Russell (Town of Salem)
Rep. Judith Spang
Rep. Andrew Renzullo
Donald Ware (Town of Hanover)
Bill Arcieri (VHB)
Gregg Comstock (DES)

1) Introductions

The meeting began with a round of introductions.

2) Approval of the 2/10/2011 Meeting Minutes

Bill Schroeder asked for an approval of the minutes of the 2/10/11 meeting. A motion to approve the minutes was made by Sam Demeritt and seconded by John Magee. The motion passed without opposition.

3) Public Hearing on Proposed Changes to Env-Wq 1708.10 and 1708.12

The Public Hearing was opened at 1:45 pm by Philip Trowbridge, who read the following statement:

> "This hearing is being held to receive public comment on rules proposed by the Department of Environmental Services regarding alternatives analysis for economic-social importance and water transfers. The Rulemaking Notice for these rules was published in the New Hampshire Rulemaking Register on February 18, 2011 as Notice Number 2011-22. This hearing is being held on the date and at the time and location indicated in that Notice.
>
> Anyone wishing to make oral comments or to submit written comments on the rules for the Department's consideration may do so during this hearing. Written comments on the rules submitted to the Department by the close of business (4:00 p.m.) on April 25, 2011 also will be considered.
>
> After the close of the comment period, the Department will consider all comments received and will decide whether to revise the rules in response to such comments. The Department will file its final proposed rules for consideration by the Joint Legislative Committee on Administrative Rules. We anticipate that the rules will be on the JLCAR for review at its May 20, 2011 meeting at the earliest, although that date is subject to change.
>
> Briefly, the rules (1) clarify the review process for proposed new or modified activities that are
> determined (under existing Env-Wq 1708.09) to result in significant lowering of water quality; and (2) replace the incorporation of the EPA's "Interim Economic Guidance for Water Quality Standards" with state-specific requirements for demonstrating that the economic or social development benefits of a proposed project outweigh the detriment to the environment that will be caused by the project. Revisions to Env-Wq 1708.12 are proposed to clarify the criteria that must be met for approval of new water transfers.
>
> If anyone has any comments, please state your name and affiliation and then proceed with your comments."

Six people provided testimony at the hearing

Name	Address	Representing
Gary Abbott	Bow, NH	Associated General Contractors
Steve DelDeo	Concord, NH	NH Water Works Association
Philip H. Bilodeau	Concord, NH	City of Concord, NH
Donald Ware	Merrimack, NH	Pennichuck Water Works
Don Ware	Hanover, NH	Town of Hanover, NH
Judith Spang	Durham, NH	State Representative, Lamprey LAC

The testimony provided during the hearing is transcribed below. Note that text surrounded by square brackets was not stated but has been included for clarification.

Gary Abbott (Associated General Contractors)
My name is Gary Abbott and I am the Executive Vice President of the Associated General Contractors of NH. I want to thank Phil [Trowbridge] for discussing these proposed rule changes on the phone with me ahead of time as I had some questions and concerns. We do have our own association environment committee that has not fully vetted this but I am going to take a crack at it, the best that I can, based upon my review, I am bringing forward to other individuals or companies within our organization. We have been struggling with these rules for a long time when it comes to turbidity and other issues regarding degradation of water.

I went back to1708.10(a)(1), "activity means", which refers to 1708.02. I went to 1708.02 and it talks about any new or proposed increased activity. That is pretty much the verbatim of a, b, c and d. I represent construction and it is not separated from an activity that is going to be on the site long-term. When you get into social and economic benefits you are talking about the end result, not the result to get there. There needs to be recognition between short-term impact and the continual impact. Just referring to the definition as it is done in this doesn't clarify the activity that we are doing the social impact on, whether it is end product or the product in process to get the end product.

In Section 2 [1708.10(a)(2)], I have a little struggle with the word fully in "if necessary to fully quantify". I would prefer to have the word fully struck because I am not sure that the Department's word "fully" and my interpretation of "fully" mean the same.

There is another section, when you go to (b)(3) [1708.10(b)(3)], with a similar word I would prefer to change. In "proposed project or activity outweigh the environmental harm that could be caused", I would like to see "environmental impact". I am not so sure harm is the right word for that because the impact, how long, and the duration under the other sections of rules talks about writing reports on how the impact would be. I think that harm is a misleading term, that it could be a permanent impact.

When it comes to (d) through (e) [1708.10(d)-(e)], and I know I represent consultants, it turns into consultant heaven. How the words in here say "shall describe each of these" and present it to the Department. I don't think it is appropriate that someone would have to file for impact to tourism if there is no impact to tourism, or have a study of that to be presented. I was hoping for some language to have to submit to be deemed appropriate for the social impact and not

necessarily mandatory, because as this reads, when this gets to (f) [1708.10(f)], that all of those things you will be gauging, whether you accept or deny, will create a lot of work that may not be necessary in the analysis of economic versus environment.

I tried to stick to this but I went back to other sections as they were referred. I went back to 1708.12. I know that wasn't intended. I have a concern under (a) [1708.12(a)], the cross out of "rivers, streams, lakes or ponds, or water used as a public water supply". I will give an inference that I don't think it was the intent of the department. I represent sand and gravel operations that have different types of settling ponds and they transfer water between some of them. How those words are cut out leaves it gray whether some things that are unintended become part of the regulation. I think you are trying to look at waterbodies that are public water supply or a high class of water and those are already intended for degradation and filtering of material. When I saw this crossed out I was concerned that somebody could misinterpret that any waterbody would have to meet this versus a certain level of quality water or specific and so I am raising the issue.

This last item may refer to the second act of rule making. Under 1703.11, which is turbidity, which for us in the construction industry is a major item. If you read 1703.11, under Class A and Class B waters it is none or under 10 NTU above naturally occurring. I believe that section ought to be part of these rules. They are so stringent and unrealistic from the construction side where the EPA has a standard of 280 NTUs. Because construction sites are going to disturb the land we are going to have some disturbance of the water and stormwater. We know that it is not going to be zero. I am from an organization that also has a national organization, which is right now going head to head with EPA over whether 280 is the wrong number. For the state of NH to have 10, and I believe this ought to be fixed because the longer this stays on the books, the less credibility the Department has with the development community. It is obvious, with the circle that I am in, that this is not realistic in the bigger picture. I would like to see that section moved to the EPA standard that is currently in place. I know that we could have further discussions on it but I feel that it is a major item that fits with this degradation of water quality.

I appreciate the opportunity to come before the department and give our comments and if we get additional comments we will give those to you.
(No written testimony was submitted).

Phil Trowbridge – I feel the subject of turbidity is better suited for the second hearing.
Gary Abbott – We can't see any reason to not go to the EPA standard for construction.

Steve DelDeo (NH Water Works Association)
My name is Steve DelDeo and I am the Executive Director of the NH Waterworks Association. I would to thank DES, the Committee and the public at large for the time they put into developing these revised rules. I know it was a lot of work. I will limit my comments to 1708.12. The NH Waterworks and our members feel that there should be an exemption for water suppliers who historically have made transfers and the capability and the mechanisms in place to make transfers. We have a number of water systems in this category. These transfers are critical in order to meet certain demands: drought, low water levels, emergencies, specifically, health requirements and fire protection. You will hear from some of our members on the specifics as

they relate to their individual water systems. With that, I would offer that the NH Waterworks Association would be willing to work with you all in revising the rules, specifically, new language that would exempt water suppliers who are in the category that I mentioned. I would like to thank you all for the opportunity.
(No written comments were submitted at the time of testimony).

Phil Trowbridge – You have the opportunity to submit written comments up until April 25th.

Philip H. Bilodeau (City of Concord, NH)
My name is Phil Bilodeau and I work for the General Services Department for the City of Concord and I have sat in this room many an occasion for a number of years as a member of this Committee. Thank you for taking this opportunity. I will try to paraphrase some of my letter and I will leave a copy of my letter on behalf of the City of Concord.

I am here today representing the City of Concord, primarily to its existing transfer that presently takes place between the Contoocook River and Penacook Lake. The City of Concord serves 12,000 service connections which provide potable water and fire protection to our customers in the City of Concord, a lot of whom are the State Office buildings. Presently, today, if you took a drink in this building you would be drinking City of Concord water. The City of Concord established the transfer of water in 1981, plus or minus months, working with the Water Supply and Pollution Control, which is the predecessor to the Department of Environmental Services, to implement the long-term needs of the City of Concord. There were some droughts that took place in the 60's & 70's which led the City of Concord to investigate the Contoocook River as a supplement to Penacook Lake. We constructed the pump station in 1981 with the approval of the State of NH Water Supply and Pollution Control Commission. Since 1981, we have relied upon the Contoocook River as a backup supply for the City of Concord's Penacook Lake during dry seasons.

From many years the City of Concord, myself, and some of our employees have been actively involved in the Water Quality Standards Advisory Committee, continually taking the position that the existing water transfers should be given an exception to the rules. Rule 1708.12 simply states, as it is printed today, "Transfers shall not be allowed unless all of the following conditions are met". I won't read the conditions because they have all been posted. Phil Trowbridge sent them out to everyone. Our question is what would prevent a future regulator or interested party from asking the City of Concord to demonstrate the conditions. The language needs to be clear to exempt the existing transfers.

I am speaking today, specifically, for the City of Concord. The City of Concord will continue to work with the Department of Environmental Services and this Committee to advance the protection of the valuable resources of safe, potable drinking water within our community and within throughout the state. Thank you.

Don Ware (Pennichuck Water Works)
My name is Don Ware and I am president of Pennichuck Water Works. I did have an opportunity for a short time between Phil [Bilodeau] and Mike [Metcalf] to sit on the Water Quality Standards Advisory Committee and did have some input into what is currently before us.

I want to thank the Committee because I know they've worked hard to develop a set of regulations that will meet the needs of all parties.

Our comments, similar to Concord's, are the concerns with 1708.12 and the lack of specific language relative to the grandfathering of existing transfers. In our case, Pennichuck Water Works has been transferring water from the Merrimack River to the Pennichuck Brook Water system since 1985. That transfer has become a critical part of meeting the community supply needs of the communities of Nashua, portions of Amherst, Merrimack and Hudson. I would like to reiterate and support Phil's [Bilodeau] desire, the City of Concord's desire, to see that there is language specifically added that would grandfather existing transfers, providing that the methods of withdrawal and discharge are not modified and that grandfathering should be for all withdrawals that are in effect at the time that the rule takes effect.

I will be following this up with written comments.

Don Ware (Town of Hanover, NH)
My name is Don Ware and I am the utility engineer for the town of Hanover and I would like to reiterate what has been already said.

Hanover, for the last 50 years has transferred water from one reservoir to another reservoir when needed, during dry times of the year. Back in 1960 they built the one reservoir, that we transfer water from one reservoir to another, and it was for that purpose. We would like to make sure that there is a clause in there to allow Hanover to do what they have been doing for 50 years. We have a treatment plant. When we transfer water we transfer water from a Class A reservoir to another Class A reservoir. Again, we have maybe some aquatic growth in Reservoir 3, the third and upper one, like purple loosestrife, that can be transferred to our other reservoir, which maybe doesn't have purple loosestrife, but we consider that insignificant because we treat the water. That ought to be taken into consideration too. What is the reason for this because this is our drinking water source? We treat it anyway. It is important that it is a Class A water, don't get me wrong, but anything that might be in it we filter out. I would like to say, for Hanover, that we support and reiterate Concord, NH, Waterworks, and Pennichuck.

Phil Trowbridge – For clarification, when you say that you treat the water, you treat what is in the system, you don't treat the water while it is being transferred?
Don Ware – That is right. It is just raw water.

Mr. Ware will submit written testimony by the 25th.

Judith Spang (State Representative, Lamprey LAC)
My name is Judith Spang. I am a state legislator but I am also a past member of the Lamprey Local Advisory Committee. This provision is familiar to me because of a similar provision in the Instream Flow Rules that we have been wrestling over for what seems like half of my adult life. I think that it is critical that clarify the importance of the Water Conservation Plan. I think that the idea behind this is that it is understandable, and probably predictable, that any source water, particularly a public drinking water source, is going to be facing water shortages at one

time or another. The purpose of the Water Conservation Plan is to make sure that there is advanced planning for those emergencies. We need to be able to have these four criteria looked at in advance by every water system when they are determining how much water they are going to take, when they are going to take it, how to minimize the impact, the ecological impact in particular, on their source of their emergency water supply that they are going to be tapping. The Water Conservation Plan makes sure that an emergency is a genuine emergency and something that could not have been prevented by good planning, for example, alternative water supplies, storage of water to help to take of emergencies. I would like to suggest, and I don't know if it is a matter of clarifying the language or expanding on the language, maybe working with the water suppliers so everyone understands fully what the conservation plan is supposed to do and the importance of it for helping with these situations.

The Public Hearing was closed at 2:10 pm after all the testimony had been received. Philip Trowbridge read the following statement:

> "Seeing no one else who wishes to comment, this hearing is hereby closed. I remind you that written comments can be submitted on or before *April 25, 2011 at 4:00 pm*. Thank you for coming."

4) Public Hearing on the Triennial Review of New Hampshire's Water Quality Standards

The Public Hearing was opened at 2:10 pm by Philip Trowbridge, who read the following statement:

> "The Department of Environmental Services is seeking advance public comment to determine if any modifications to New Hampshire's surface water quality standards are needed. The New Hampshire surface water quality standards consist of RSA 485-A:1-4, 8-11 and Env-Wq 1700, Surface Water Quality Regulations. The Department is seeking suggestions from the public for possible revisions to the standards per 40 CFR 131.20. These suggestions will be considered by the Department's Water Quality Standards Advisory Committee for future modifications to New Hampshire's water quality standards.
>
> I need to stress that comments provided in this hearing have no bearing on the active rulemaking process for Env-Wq 1708.10 and 1708.12. Instead, comments will be considered for potential future rulemaking with a time table to be determined."

At the beginning of the hearing, Paul Currier asked Gary Abbott if his testimony regarding the turbidity standard in the previous hearing could be transferred to this hearing. Changes to the turbidity standard are more relevant to this hearing than the previous one. Gary Abbott agreed.

Two people provided testimony at the hearing

Name	Address	Representing
Bill Arcieri	VHB	VHB
Ken Rhodes	CLD Engineers	Associated General Contractors

The testimony provided during the hearing is transcribed below.

Bill Arcieri (VHB)
My name is Bill Arcieri and I am a water resource scientist with VHB. I wasn't planning on testifying but I do have suggestion that DES revisit the chloride standard for two reasons, one is the State of Iowa has done some new studies and have come up with some new toxicological information that suggests that chloride toxicity is dampened in the presence of increased hardness and the presence of sulfate concentrations. The other issue is the return frequency that is associated with the EPA recommended standard of not more than once in a three year period, which is a difficult number or frequency to assess when you are dealing with monitoring data. Lastly, to add with that, I am not sure that DES currently has included the one-hour average for acute concentrations in the four day average for chronic criteria.

Bill Schroeder – Are you referring to the chloride standards that have been talked about a fair amount recently with respect to chloride runoff from highway salting and there is currently a standard that is acute and chronic? Do those numbers come from the EPA?
Bill Arcieri – Yes.
Bill Schroeder – You are suggesting that we revisit those numbers?
Bill Arcieri – Yes, for the reasons just stated.
John Hodsdon – Are you suggesting that NH should have more stringent standards on chloride than Iowa for reasons of ecological preservation?
Bill Arcieri – I am suggesting you use the data that Iowa developed which changes the standards. It actually increases the chronic standard but lowers the acute standard based on new toxicological information on various species.
John Hodsdon – You are aware that, because of New Hampshire geology, we have a low chloride which gets into our streams and some species that come from areas that have higher levels of chloride may be invasive if they get into our streams, which they could thrive in if our chloride levels were higher to the detriment of species that are natural here.
Bill Arcieri – Yes, I am suggesting to look at this information here.
Phil Trowbridge – The purpose of the proposal isn't to debate the merit of the proposal but to take in the proposal.

Ken Rhodes (Associated General Contractors)
I am Ken Rhodes and I am a member and vice-chair of the WQSAC. I thought that it might be prudent, as part of the triennial review, to put on the record that this Committee's activity, particularly as they relate to designated uses/classifications and antidegradation, are extremely important going forward. Particularly, as part of the triennial review or other issues that are ongoing or need to be focused and clarified, so that we have a really good platform moving ahead. Without testimony, or at least putting it on the record, it is just a reinforcement of that. He made me do it. Again, I think particularly as some of the rules related to antidegradation and the classification work that this Committee is ongoing with is going to be really beneficial if we can come up with a good rubric. Thank you.

The Public Hearing was closed at 2:30 pm after all the testimony had been received. Philip Trowbridge read the following statement:

"Seeing no one else who wishes to comment, this hearing is hereby closed. I remind you that written comments can be submitted on or before *April 25, 2011 at 4:00 pm*. Thank you for coming."

5) Other Business

After the public hearing, there was discussion about how the comments regarding water transfers could be addressed. The following points were made:

- It should be clarified that a transfer that has mechanisms in place but no permission to operate would not be grandfathered.
- There are 8-11 existing transfers for public water supplies in NH. There is a list but it should be updated.
- One idea discussed previously is that these transfers would be exempt until a new Water Quality Certification is needed. Another limit would be effects on the source water quality. Transfers cannot expand to the point where they affect the source water.
- Why not use the definition of surface waters of the state instead of 'waters'.
- Why do existing transfers need to be excluded if they meet the criteria? Antidegradation evaluations take time and resources and are new to most people.
- Doesn't DES have the authority now to stop transfers that will affect water quality in source and receiving waters using the Water Quality Certification process? Yes, but the new rule makes the process clearer, more explicit.
- Are the water conservation plans from Env-Ws 2101 sufficient to satisfy Rep. Spang's comments about planning? All of the existing transfers have some sort of water conservation plan already, although they may not fully satisfy Env-Wq 2101. The existing transfers are truly needed, not a result of wasteful practices.
- How is the rule related to the ISF process? ISF sets minimum flows which cannot be violated except in emergencies. Withdrawals need to comply with these minimum flow requirements.
- Next steps
  - DES will review comments and prepare revised language for the June 9 WQSAC meeting
  - DES and NHWWA will work on a list of existing transfers. Other transfers besides water supply need to be added (e.g., transfers for snowmaking)
  - After June WQSAC meeting, the rulemaking proposal will be submitted to JLCAR.

6) Adjourn

The meeting was adjourned at 3:30 pm.

Exhibit 5B

Trowbridge, Philip

From: Tyler Phillips [tphillips@horizonsengineering.com]
Sent: Thursday, February 17, 2011 11:28 AM
To: Trowbridge, Philip
Subject: RE: Rulemaking Notice-1708.10

Hi Phil,
I have one suggested typo to correct and one suggested modification to the proposed rule change below:

Typo
1708.10 (f) (1) & (2) reference criteria (a) 1-3. It appears that this was likely intended to reference criteria (*b*) (1)-(3).

Modification
Assuming that the abovereferenced change is made, I would suggest changing proposed Env Wq-1708.10 (b) (3) to read "The *net* social and economic benefits of the proposed project…" .
I believe that this change is necessary for the following reasons:

- 1708.10 (f) indicates that the Department's preliminary determination on the request be based upon a limited set of criteria specified in 1708.10 ([*b*]) (1)-(3).
- As written criteria (b) (3) would seem to only weigh the environmental impacts with the social and economic benefits of the project and would seem to discount or ignore any detrimental social or economic effects that may identified from determinations specified in 1708.10 (d).

Whether the term "net" social and economic benefits is appropriate and should be defined or the intent of my suggestion is better carried out in the latter half of the 1708.10 (b) (3) through the addition of "… outweigh the *social, economic, and* environmental harm.." I will leave for you to decide.

Thanks for allowing me to comment on the proposed rule,

Regards,

Tyler Phillips

Note: the statements presented in this email reflect my personal opinions and do not neccesarily reflect those of my employer.

From: Trowbridge, Philip [mailto:Philip.Trowbridge@des.nh.gov]
Sent: Thursday, February 17, 2011 9:16 AM
To: Watershed
Cc: Trowbridge, Philip
Subject: Rulemaking Notice

Greetings-

DES is proposing revisions to Env-Wq 1708.10 and Env-Wq 1708.12, as explained below. The Initial Proposal and Rulemaking Notice for the proposed rules are available at http://des.nh.gov/organization/commissioner/legal/rulemaking/index.htm#pwaterq.

The existing rules, Env-Wq 1700, establish numerical and narrative water quality standards for surface waters in this state as required by RSA 485-A:8-13 and the federal Clean Water Act, 33 U.S.C. 1251 et seq. Revisions to Env-Wq 1708.10 are proposed to (1) clarify the review process for proposed new or modified activities that are determined (under existing Env-Wq 1708.09) to result in significant lowering of water quality; and (2) replace the incorporation of the Interim Economic Guidance for Water Quality Standards EPA- 823-B-95-002, dated March 1995 (Interim Guidance), which is used when

demonstrating the importance of the economic or social impact of a significant discharge, with state-specific requirements for demonstrating that the economic or social development benefits of a proposed project outweigh the detriment to the environment that will be caused by the project. Revisions to Env-Wq 1708.12 are proposed to clarify the criteria that must be met for approval of new water transfers.

The public hearing on the proposed rules is scheduled for Thursday, April 14, 2011, beginning at 1:45 PM in Rooms 112-113-114 of the DES Offices at 29 Hazen Drive, Concord, NH. The deadline for submission of written comments is 4:00 p.m. on Monday, April 25, 2011.

Comments or questions should be directed to me at the phone or fax number or e-mail address noted below.

Philip Trowbridge
DES Water Division, Watershed Management Bureau
29 Hazen Drive; P.O. Box 95
Concord, NH 03302-0095
Tel: 603-271-8872
Fax: 603-271-7894
philip.trowbridge@des.nh.gov

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Philip Trowbridge, P.E.
Coastal Scientist / Water Quality Standards Program Manager
N.H. Dept. of Environmental Services
603.271.8872
Philip.Trowbridge@des.nh.gov

Exhibit 5B

Trowbridge, Philip

From: Currier, Paul M.
Sent: Monday, March 28, 2011 8:33 AM
To: Trowbridge, Philip
Cc: Comstock, Gregg
Subject: FW: Some Questions & requested changes to Env-Wq 1708.10 and Env-Wq 1708.12

WC Env-Wq 1708
3-25-11 NC inpu...

-----Original Message-----
From: Nancy E Christie [mailto:nchristie@metrocast.net]
Sent: Sat 3/26/2011 1:27 PM
To: Currier, Paul M.
Cc: John Gilbert
Subject: Some Questions & requested changes to Env-Wq 1708.10 and Env-Wq 1708.12

Hi Paul,

At the March water council meeting there was only time for me to ask a couple questions re the above proposed changes. As promised, I've attached the amendments, with these and additional questions in red font text, as well as some insertions and other changes, also in red text. Some requested changes are to clarify meaning; others are substantive.

My goal is to remove any ambiguity/vagueness that could be interpreted by unscrupulous persons to their own advantage (that is, to degrade water quality). Likewise, while the amendments cannot provide a list of all cases, I think they should provide for the most important ones (see the 2 additions on p. 2, (d), and also on p. 3, (5) - water chemistries).

Thank you for your consideration.

Nancy

Nancy Christie

PO Box 55

Pittsfield, NH 03263

603/856-1133 (cell)

nchristie@metrocast.net

City of Concord, New Hampshire
GENERAL SERVICES DEPARTMENT
311 N STATE STREET
CONCORD, NH 03301

Exhibit 5B

PHILIP H. BILODEAU, P.E.
Deputy Director of General Services
(603) 228-2737

April 14, 2011

Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

Subject: RULEMAKING NOTICE
Rule Number Env-Wq 1708.12
Water Transfers

Gentlemen:

I write on behalf of the City of Concord, New Hampshire, primarily relating to its existing transfer of water from the Contoocook River to Penacook Lake. The water system for the City of Concord is managed and operated by the General Services Department. The water system provides its 12,000 service connections with safe drinking water and fire protection for the entire community including all the State facilities located in the city.

The City of Concord established the practice of a water transfer in 1981. Due to the result of several drought years, the City completed engineering studies and worked in conjunction with the then Water Supply and Pollution Control Commission (predecessor to the Department of Environmental Services) to develop and implement a solution for our long term water supply needs. With the approval of the Water Supply and Pollution Control Commission, the City constructed a pump station along the Contoocook River to augment the City water supply needs. Since 1981, the City has relied upon the transfer of water from the Contoocook River to Penacook Lake to meet its water demands.

For many years the City has been an active participant in the Water Quality Standards Advisory Committee (WQSAC). Minutes will indicate the City's continuing position that existing transfers must be considered in any rule making agenda. While NHDES staff has indicated over the years in these WQSAC meetings that the review of water transfers and the need to go through the 1708.12 process is only for new or modified transfers, there is nothing in these proposed rules presented here today to indicate such a position. The language simply states that water transfers "shall not be allowed unless all of the following conditions are met:

1. The transferred water does not contain aquatic species or other species of aquatic life that could result in a violation of Env-Wq 1703.19 relative to the integrity of the biological and aquatic community in the receiving water;
2. Existing and designated uses shall be maintained and supported in the source water and the receiving water;
3. The withdrawal from the source water and the transfer to the receiving water will not result in any degradation of water quality or have both been reviewed under the process specified in Env-Wq 1708.10 and determined by the department to meet the criteria specified for approval in Env-Wq 1708.10(a)(1)-(3); and
4. A water conservation plan that meets the water conservation requirements set forth in Env-Wq 2101 has been approved by the department and is being complied with."

What is to prevent a future regulator, or interested party, from saying to Concord for example, you need to demonstrate that your transfer of Contoocook River water to Penacook Lake meets these regulations? The language needs to clearly exempt existing transfers.

In reviewing the Rulemaking Notice, the City takes exception to the statements in the Fiscal Impact Statement FIS# 11:014 dated 2/04/11 that there are no cost to State Citizens and political subdivisions. The rule as proposed will impose a severe financial burden upon the citizens of Concord should the application of the rule were applied in the literal sense. Should such a financial burden be brought forward, the City will likely interpret this action as a violation of Part I, Article 28-a of the N.H. Constitution.

The City will continue to work with the Department of Environmental Services and the WQSAC to advance the protection of this valuable resource and provide our customers with safe reliable potable water.

Sincerely,

Philip H. Bilodeau

Philip H. Bilodeau, P. E.
Deputy Director
pbilodeau@concordnh.gov

CC Thomas J. Aspell, Jr., City Manager
James Kennedy, Esq., Deputy City Solicitor
Earle M. Chesley, P.E., General Services Director
Thomas Burrack, Commissioner, Department of Environmental Services
Harry Stewart, P. E,, Administrator, Water Division, Department of Environmental Services

PENNICHUCK

Exhibit 5B

25 MANCHESTER STREET
PO BOX 1947
MERRIMACK, NH 03054-1947
(603) 882-5191
FAX (603) 913-2305

WWW.PENNICHUCK.COM

April 18, 2011

New Hampshire Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH
03302-0095

Attn: Mr. Philip Trowbridge, P.E.
RE: Env-Wq 1708.12

Dear Phil:

The purpose of this letter is to reiterate the comments from the public hearing regarding the proposed rulemaking for Env-Wq 1708.12 regarding Pennichuck's belief that the final rule should provide specific language grandfathering existing water supply transfers. As witnessed at the hearing, numerous New Hampshire communities including Nashua, Concord and Hanover have been transferring water from one water body to another for decades. These transfers are essential parts of the water supply for these communities and are necessary for the economic well being and public safety of these communities. Pennichuck believes that Env-Wq 1708.12 should have specific language added to the rule that makes it clear that existing transfers will be allowed and will not require permitting as long as the method of withdrawal and discharge are not modified and the quantity of water transferred is not increased beyond the levels that have been historically transferred.

Thank you for the opportunity to comment on this rule. Pennichuck looks forward to working with the NHDES to craft language to be added to Env-Wq 1708.12 that will allow the continuation of existing water supplier water transfers that were in effect at the time that this rule is finalized.

Very Truly Yours,

Donald L. Ware

Donald L. Ware, P.E.
President – Regulated Water Utilities

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Exhibit 5B

TOWN of HANOVER
HANOVER, NEW HAMPSHIRE 03755
P.O. BOX 483 603/643-4123

April 18, 2011

Philip Trowbridge
NH Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

RE: RULEMAKING NOTICE
Rule Number Env-Wq 1708.12
Water Transfers

Dear Philip:

This letter is written on behalf of the Town of Hanover to substantiate comments made at the Public Hearing on Thursday April 14, 2011 regarding proposed changes to Rule Number Env-Wq 1708.12 and Water Transfers.

The Town of Hanover Department of Public Works operates the Hanover Water Department which provides drinking water and fire protection to the urban area of the Town of Hanover including Dartmouth College. The source of water is from two watersheds connected via a 10 inch diameter transmission main. Both water sheds are of excellent quality. The only difference is the upper watershed is sparsely developed while the lower watershed is undeveloped.

Hanover's municipal water, which has existed since 1893, has been transferring water from the upper watershed to the lower watershed seasonally for the past 50 years. The upper watershed reservoir and transmission pipeline were constructed by the then Hanover Water Works Company to supplement the water supply for the community during dry periods. The sole use of the reservoirs in the lower watershed is for municipal drinking water. Over the past 15 years Hanover has proactively instituted water conservation through plumbing code, irrigation restrictions and Planning and Zoning activities. In 2006 HWWCo constructed a highly efficient membrane filtration system to enable the community to continue to utilize both watersheds for the foreseeable future. The treatment facility was designed utilizing the 2.5 MGD safe yield of both watersheds to limit the need for any additional water supplies.

We understand that the proposed rules are intended to pertain to a new or modified water transfer. However, there is no language that specifically exempts existing water transfers. The language simply states that water transfers "shall not be allowed unless all of the following conditions are met:

1. The transferred water does not contain aquatic species or other species of aquatic life that could result in a violation of Env-Wq 1703.19 relative to the integrity of the biological and aquatic community in the receiving water;

2. Existing and designated uses shall be maintained and supported in the source water and the receiving water;
3. The withdrawal from the source water and the transfer to the receiving water will not result in any degradation of water quality or have both been reviewed under the process specified in Env-Wq 1708.10 and determined by the department to meet the criteria specified for approval in Env-Wq 1708.10(a)(1)-(3); and
4. A water conservation plan that meets the water conservation requirements set forth in Env-Wq 2101 has been approved by the department and is being complied with."

All of these requirements are also Hanover's objectives to ensure additional sources are not needed and drinking water quality is not degraded. As the proposed rule is written there is nothing to prevent a future regulator or other interested party from requiring Hanover's existing water transfer to meet the revised proposed regulations. We have already seen this with the recent interpretation of dam hazard reclassification by the NHDES Dam Bureau. The rule needs to clearly exempt existing transfers of a similar quality or at least establish a standard to determine what a modification of an existing water transfer is and at what point a study would be required.

The Rulemaking Notice Form, states that there would be no difference in cost between the proposed rule and existing rule. However, there would be costs associated with water quality testing, environmental studies, and developing a state approved water conservation plan. These costs would be reflected in higher rates for the consumer. In addition, a community could be compelled to abandon an existing source at considerable expense, to prevent a degradation of receiving water which sole use has historically been municipal drinking water.

The Town of Hanover appreciates and supports efforts to protect water resources in order to assure an adequate supply of potable water for its customers. In the case of Hanover's water transfer, the new proposed rule changes would only add to the cost without improving the water quality. Thank you for your consideration.

Sincerely,

Donald J. Ware, P.E.
Utility Engineer

cc: Peter E. Kulbacki, P.E., Director of Public Works

Exhibit 6A

Response to comments re: public hearing on proposed changes to Env-Ws 1700 in 2008 Exhibit 6A

A public hearing was held on March 14, 2008 to receive public comment on rules proposed by the Department of Environmental Services to readopt, with clarifying amendments, existing water quality standards for the state's surface waters. No oral or written comments were received at the hearing. One set of comments was received from William Beckwith of the Environmental Protection Agency during the comment period. This document responds to the comments by providing the rule in question, EPA's comment on the rule and DES' response to the comment.

Rule:
Env-Ws~~q~~ ***q*** 1702.53 "Wetland" means "wetland" as defined in ~~Wt 101.87~~ ***RSA 482-A:2, X***, namely "an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands include~~, but are not limited to~~ swamps, marshes, bogs and similar areas as delineated in accordance with ***Env***-Wt~~.~~ ~~301.01~~ ***100 et seq***.

EPA comment:
wetlands definition, p. 5: Normally a definition that says "including [whatever]" means "including but not limited to." But here, DES proposes to delete the explicit language "but not limited to." This raises the question of whether DES intends to limit the definition of wetlands to just the types specifically listed. That would be a concern if it narrowed the extent to which NH's WQS are applicable to wetlands within NH that are waters of the US. Please explain the purpose and meaning of this draft revision.

DES response:
The deleted language was deleted from the Wetlands rules on the basis that deleting it did not change anything but it made some people (the vocal minority) happier. We have been deleting the language from other rules to be consistent with the Wetlands rules. However, based on EPA's concerns we have added the language back in and will see what happens at the JLCAR.

Rule:
Env-Wq 1703.11 Turbidity
(d) For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge, a violation of the turbidity standard shall be deemed to have occurred.

EPA comment:
The proposed new turbidity provision at Env-Wq 1703.11(d), page 8, i.e., ***"For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge plume, a violation of the turbidity standard shall be deemed to have occurred."***
: Introduction of a separate interpretation for enforcement creates confusion as to the meaning of the underlying criteria otherwise applicable at Env-Wq 1703.11(a), (b), and (c). To the extent that NH may feel that the suggested provision is necessary, it would be better used as an enforcement discretion policy, and not included in the WQS.

DES response:
We added it to the rule specifically because having it in "policy" might be inadequate to withstand a challenger were one to be made. The provision is limited to state enforcement actions so as to not interfere with EPA actions.

Rule:

Env-Wq 1703.22 Notes for Table 1703.1

(d) ***The letter*** "d" shall indicate that criteria for these metals are expressed as a function of the water effect ratio (WER) as defined in 40 CFR 131.36(c). The values displayed in Table 1703.1 correspond to a WER of 1.0. To determine metals criteria for different WER's, the procedures described in the EPA publication "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals" (EPA-823-B-94-001) shall be used. ***For copper, the "Streamlined Water-Effect Ratio procedure for Discharges of Copper" (EPA-822-R-01-005) or the Biotic Ligand Model (freshwater only) (EPA-822-R-07-001) may also be used.***

and

Env-Wq 1704.02 Procedures

(b) The procedure for determining alternative site specific criteria for protection of aquatic life shall be as published in EPA's **"**Interim Guidance on Determination and Use of Water-Effect Ratios for Metals**"** ~~dated February, 1994 and published in EPA's Water Quality Standards Handbook: Second Edition.~~ ***(EPA-823-B-94-001). For copper, the "Streamlined Water-Effect Ratio procedure for Discharges of Copper", EPA-822-R-01-005, or the Biotic Ligand Model (freshwater only), EPA-822-R-07-001, may also be used.***

EPA comment:

Inclusion of EPA's Streamlined WER guidance and the BLM for adjusting copper criteria (pages 15 and 26): Inclusion of EPA's guidance "Streamlined Water-Effect Ratio Procedure for Discharges of Copper" is proposed. We suggest that DES include a statement that "the Department may require more than the two WERs prescribed in the method as necessary to characterize variability and ensure protection of aquatic life uses." There are some difficult issues with WER development that the streamlined guidance attempts to address in an appropriate way; however, we are concerned that the average of the results for two samples/WERs representing a single instream condition may not be adequate to ensure that site-specific criteria will be protective. The "Interim" WER guidance and the BLM are more rigorous in that regard.

DES response:

The referenced EPA document for WER procedure already provides for more than two samples. Under the Analysis of Data section on page 5 it states "Final site WER is the geometric mean of the two (or more) sample WERs". Adding the above statement would be redundant. In addition, EPA has final approval of any proposed alternative site specific criteria and can require additional samples if needed.

Rule:

Env-W~~s~~***q*** 1703.25 Freshwater Aquatic Life Criteria For Ammonia.

EPA comment:

Revision of the freshwater ammonia criteria to EPA's "1999 Update," page 18:
- A provision of EPA's 1999 freshwater ammonia criteria, i.e., "The highest four day average within a thirty day period is not to exceed 2.5 times the CCC," is omitted. We note that the duration and frequency components that are to accompany the magnitude components are not stated either. Presuming DES's intent is to use EPA's guidance with regard to duration and frequency for freshwater ammonia (i.e., the 1 hour average for acute and 30 day average for chronic, and the frequency component that these durations not be exceeded more that once every three years on average), the omitted provision should be adopted. The omitted provision would not be necessary if the intent is to apply the magnitudes (criterion maximum concentration (CMC) for acute and criterion continuous concentration (CCC) for chronic) as instantaneous values not to be exceeded.

DES response:

In response to your first comment, we propose to add the omitted statement as paragraph (h) under Env-

(h) In addition to (e) and (f) above, the highest 4-day average within a 30-day period shall not exceed 2.5 times the chronic criteria.

In response to the lack of frequency and duration statements, those issues are currently under discussion and will be addressed in the next rule adoption. As you know, a frequency and duration statement for ammonia is different than the required frequency and duration for most other toxics. How best to address this issue is under discussion and it is premature to insert a language change in this rule adoption.

Rule:
(d) Subject to (e) and (f) below, Tables 1703.4B and 1703.4C shall be used to calculate freshwater chronic aquatic life criteria, in milligrams of nitrogen per liter, for ammonia. The use of Table 1703.4C requires documentation acceptable to the Department of the absence of fish early life stages.

EPA comment:
We support the statement at Env-Ws 1703.25(d) requiring adequate information to document use of the early life stages absent values. The importance of adequate and reliable information for this purpose was emphasized in the federal register notice announcing availability of the freshwater ammonia criteria 1999 update (64 FR 71973-71980).

DES response:
No response required. note that (d) will now read: "Subject to (e) through (h), below, …"

Rule:
Env-W~~s~~***q*** 1703.25 Freshwater Aquatic Life Criteria For Ammonia.

EPA comment:
Notwithstanding the above comments concerning adoption of EPA's 1999 freshwater ammonia criteria guidance, recent research indicates that mussels may be more sensitive to ammonia than the organisms included in the data set for EPA's 1999 ammonia criteria revision. EPA's 1999 chronic criteria guidance for ammonia is less stringent than EPA's 1998 chronic criteria (that are currently in New Hampshire's water quality standards) at pH and temperature conditions most common to New Hampshire's waters, particularly at colder temperatures. We encourage DES to carefully consider this prior finalizing revisions to its standards.

DES response:
Our intent is to follow EPA's most recent guidance document for ammonia: *1999 Update of Ambient Water Quality Criteria for Ammonia* (EPA-822-R-99-014). We are uncomfortable making changes based on recent research that has not yet been incorporated into EPA guidance. Changes can be made in a future rule adoption, if appropriate.

Rule:
PART Env-W~~s~~***q*** 1708 ANTIDEGRADATION

Env-W~~s~~***q*** 1708.01 Purpose. The purpose of these antidegradation provisions is to ensure that the following provisions of 40 CFR 131.12 are met:

(a) Existing ~~instream water~~ uses and the level of water quality necessary to protect the existing uses shall be maintained and protected;

EPA comment:

existing use, deletion of "instream" at p. 28 & throughout the antidegradation section. Though "instream" is consistent with the federal existing use language, the revision might be acceptable. We would like to understand DES's thought on the issue before making a determination. Please explain the purpose and meaning of this draft revision.

DES response:

Water quality criteria apply to lakes and ponds as well as flowing waters. The use of the term "instream" is misleading and confusing. In addition, water quality criteria are designed to support existing and designated uses. Wildlife support is a designated use in New Hampshire and is defined as "waters that provide suitable physical and chemical conditions in the water and the riparian corridor to support wildlife as well as aquatic life". In other words, it is a use that is not necessarily *in* the water. Deleting the term "instream water" clarifies the fact that the rules apply to **all** existing and designated uses for **all** surface waters.

Exhibit 6B

Introduction

Revisions to Env-Wq 1708.10 are proposed to (1) clarify the review process for proposed new or modified activities that are determined (under existing Env-Wq 1708.09) to result in significant lowering of water quality; and (2) replace the incorporation of the Interim Economic Guidance for Water Quality Standards EPA- 823-B-95-002, dated March 1995, which is currently used when demonstrating the importance of the economic or social impact of a significant discharge, with project-specific requirements for demonstrating that the economic or social development benefits of a proposed project outweigh the detriment to the environment that will be caused by the project.

Revisions to Env-Wq 1708.12 are proposed to clarify the criteria that must be met for approval of new water transfers.

Comments on the Initial Proposal (IP) were received at the public hearing and during the public comment period from the following.

DES Wastewater Engineering Bureau
DES Watershed Management Bureau
Horizons Engineering
Nancy Christie, NH Water Council
Associated General Contractors
Judith Spang, State Representative, Lamprey LAC
NH Water Works Association
City of Concord, NH
Pennichuck Water Works
Town of Hanover, NH
Office of Legislative Services, Division of Administrative Rules

Changes were drafted to address the identified concerns; revised language was shared with the Water Quality Standards Advisory Committee, which provided additional comments. Additional revisions were drafted to address the additional comments. The following summary includes all comments received, listed in order of rule number.

Env-Wq 1708.10 (throughout):

Comment: Should replace all references to "proposed project or activity" and "proposed activity" to "activity" to remove undefined terms like "project" and to shorten sentences.

Response: Because "activity" only includes new or modified activities (based on Env-Wq 1708.02), DES agrees and has made the suggested change.

Env-Wq 1708.10(a)(1):

Comment: The definition of "activity" refers back to 1708.02, under which construction activities could be governed by this rule. Construction itself typically does not have a large economic or social benefit; however, the end product of the construction does. This rule needs to specify that the social and economic benefits from construction and operation are considered together.

Response: DES agrees and has revised the definition of "activity" to clarify that all associated construction is included within the defined term. DES also has revised later paragraphs to clarify that the assessment must be of the "effect of constructing and operating or otherwise engaging in" the activity.

Env-Wq 1708.10(a)(2):

Comment: Should delete "fully" from second line; DES's interpretation of "fully" may be different from others.

Response: DES agrees that the word does not add any substance and has deleted the term.

Env-Wq 1708.10(b) intro:

Comment: Should change the phrase "not determined to result in an insignificant impact" to "determined to result in a significant impact" to remove the double negative and make the sentence clearer.

Response: This change has been made.

Env-Wq 1708.10(b)(1):

Comment: Should replace "development" with "activity". Development is too general and is not defined.

Response: DES agrees and has made this change.

Env-Wq 1708.10(b)(2):

Comment: Should replace "development" with "benefit". Development is not a defined term and was removed from the title of the section.

Response: DES agrees and has made this change here and in Env-Wq 1708.10(e).

Env-Wq 1708.10(b)(3):

Comment: Should replace "environmental harm" with "environmental impact" for consistency with other sections of the proposed rule [e.g., paragraph (f)].

Response: DES agrees and has made the change.

Comment: Should change "social and economic benefits" to "net social and economic benefits". As written, the rules do not consider any detrimental social or economic impacts. By adding the word "net", it would be clear that positive social or economic impacts should be offset by both negative social or economic impacts and environmental impacts.

Response: DES agrees and has made this change throughout Env-Wq 1708.10, including in the section heading.

Comment: How will DES determine if the net social and economic benefits outweigh the environmental impact?

Response: DES acknowledges that balancing social/economic benefits against environmental detriments is difficult, but notes that most of the programs DES implements are based on the premise that this balance can be achieved. DES believes that in most cases, the required analyses of specific factors will result in the appropriate balance being achieved. Per Env-Wq 1708.10(h), if DES makes a preliminary determination that the request should be approved even though water quality will be lowered, the decision is subject to the public comment process specified in Env-Wq 1708.11. Any request that is denied can be appealed to the Water Council. The decision is thus subject to scrutiny in additional public forums, which further increases the likelihood that the appropriate decision will be made.

Env-Wq 1708.10(d):

Comment: There are two paragraphs labeled "(d)" in Env-Wq 1708.10.

Response: The second paragraph (d) and subsequent paragraphs (e) - (g) have been relabeled as (e) - (h). **Note:** In this summary of comments and responses, the paragraphs are referenced by the corrected letter(s).

Env-Wq 1708.10(d)(9):

Comment: In Env-Wq 1708.10(d)(9), should add "and capture and reuse of stormwater" at the end of the sentence.

Response: The list in Env-Wq 1708.10(d)(9) is intended to provide examples of alternative site designs that should be considered, not to provide an exclusive list. However, a reference to low impact development elements has been inserted to clarify this and "reusing stormwater" has been added.

Env-Wq 1708.10(e):

Comment: Applicants will need guidance on the types of effects they need to report for important social and economic development.

Response: DES has revised this paragraph to clarify the factors and to clarify that the activity must provide a net benefit. Based on implementation of the rule, DES will determine whether a further rule revision or written guidance is needed.

Comment: Should end the introductory sentence with "the project's or activity's effect on the following factors" to make it clear what should be evaluated.

Response: DES believes the revisions made to the paragraph (noted above) clarify what must be evaluated.

Comment: Should delete the "quality of life" factor [(e)(3)] for economic assessment because it is not practicable and is redundant with other factors (social services, public health, employment, tourism).

Response: DES agrees and has deleted this factor.

Comment: Should consider adding two more factors to consider: the effect on recreation and the effect on adjacent property values.

Response: DES has added recreation to the "tourism" factor. However, the effect on adjacent property values was not included because the factor seems too narrowly focused compared to the other economic factors in the rule, which focus on the larger area. An applicant who believes that property values should be considered may include them under the last ("other factors") category.

Comment: The proposed rule does not have language that would allow an applicant to skip economic/social analyses that are not relevant to the project. Applicants could waste resources documenting issues that are not important. Language should be added to make it clear that only relevant analyses need be completed.

Response: DES has revised this paragraph to clarify that if the activity is not expected to affect a factor, no additional response is required. However, if the application does not address a factor even to say the activity will not affect it, then DES will not know whether the factor was considered.

Env-Wq 1708.10(f) (overall):

Comments: The proposed rule does not have language that would allow an applicant to skip environmental analyses that are not relevant to the project. Applicants could waste resources documenting issues that are not important. Language should be added to make it clear that only relevant analyses need be completed, e.g., by replacing "the proposed discharge" with "in light of the proposed project or activity" or by adding "if any" to each factor.

Response: This paragraph has been extensively revised to clarify the environmental factors that must be addressed and to clarify that if the factor does not apply to a particular activity, then all that is required is an explanation of why. However, if the application does not address a factor even to say the activity will not affect it, then DES will not know whether the factor was considered.

Note: For the remaining comments/responses on this paragraph, the subparagraphs referenced are those in the Initial Proposal.

Comment: What is the difference between (f)(3) and (f)(1)?

Response: Subparagraph (f)(1) ["sensitivity of existing and designated uses to the proposed discharge"] asks for information about the environmental impact per unit of pollutant load (or other disturbance), whereas (f)(3) ["estimated degree of change in water quality"] asks for information on how much pollutant loads or concentrations will increase.

Env-Wq 1708.10(f)(1):

Comment: In the sentence "The sensitivity of existing and designated uses to the proposed discharge" what does "sensitivity" mean?

Response: Sensitivity is used here in the standard dictionary definition sense of the degree of susceptibility to a particular stimulus or stimuli. This factor looks at the impact of the activity on the existing or designated uses per unit of pollutant load.

Env-Wq 1708.10(f)(2):

Comment: Should add "including potential impacts on micro, and macro, plant and animal life" to the end of (f)(2).

Response: Potential impacts to aquatic life and other designated uses are evaluated under (f)(1). Subparagraph (f)(2) looks specifically at fate and transport of the pollutant, not impacts to designated uses.

Note: Supporting aquatic plant and animal life is a "designated use" under the federal Clean Water Act, which requires each state to designate appropriate uses ("designated uses") for surface waters. Designated uses represent the activities that the state wishes to restore or maintain for the waters, and can be activities that directly benefit humans, for example clean water for recreation, or attributes that provide indirect ecosystem benefits, such as supporting aquatic organisms.

Env-Wq 1708.10(f)(4):

Comment: What are "high value resources"? Are they defined anywhere?

Response: A definition of "high value resource" has been added as Env-Wq 1708.10(a)(4).

Env-Wq 1708.10(f)(6):

Comment: Should replace "upsets" with "failures".

Response: "Upsets" is a commonly-used term in the wastewater treatment field and so has been retained. However, DES has revised the rule to add "failures".

Comment: Should specify what kind of "treatment technology" is included; better to use "water treatment technology" instead of "waste treatment technology" because waste has a specific meaning in the water quality standards. Also should clarify whether this section pertains to just active treatment or passive treatment by best management practices.

Response: DES revised this paragraph to clarify that it pertains to water treatment other than passive stormwater treatment best management practices.

Env-Wq 1708.10(g)(1):

Comment: Should delete "appear to".

Response: The words have been deleted.

Comment: Paragraphs (g)(1) and (g)(2) reference criteria in (a)(1)-(3). It appears that this was likely intended to reference criteria in (b)(1)-(3).

Response: Several cross-reference errors have been noted and corrected, including this one.

Env-Wq 1708.10(h)(1):

Comment: What is the procedure if DES denies the request? Should that procedure be noted here?

Response: Decisions under these rules can be appealed to the Water Council per RSA 485-A:19. There is no need to repeat this information here. The purpose of paragraph (h) is to specify the requirements for public participation for a project for which a preliminary decision to approve has been made.

Env-Wq 1708.12:

Comment: The rules need to grandfather existing transfers, provided the methods of withdrawal and discharge are not modified; grandfathering should apply to all withdrawals that are in effect at the time that the rule takes effect.

Response: DES intended for the rules to apply prospectively; that is, to not apply to existing transfers unless significant changes are made. A new paragraph has been inserted to clarify this.

Comment: Should restore the original language stating that this section applies to transfers from "rivers, streams, lakes, or ponds to waters used as a public water supply". The proposed rule strikes this language and replaces it with transfers from "one water body to another". The proposed rule could be interpreted to mean transfers between settling ponds.

Response: The language in the rule needed to be expanded to encompass more than just transfers for public water supplies because there are many other types of transfers now (*e.g.*, snowmaking, flood control). DES notes that RSA 485-A:12, IV (re: water withdrawals or diversions) uses the term "surface water," and so to be consistent with the related statute DES has replaced "water body" with "surface water". Also, a definition of "transfer" has been added to clarify what is (and is not) covered by the rule. DES believes that the intent of the statute and rule are clear and will be applied with reason.

Comment: Temporary transfers between settling basins during construction should be exempt from the rule.

Response: The definition of "transfer" that has been added to the rule clarifies that such transfers are not covered.

Comment: The term 'active operation' [in the revised draft] should be defined.

Response: New paragraphs have been added to the rule to explain what the term means and how someone can request a determination that a transfer was in active operation even if it does not meet the specified criteria.

Env-Wq 1708.12(a)(1)-(4) [to become (c)(1)-(4)]:

Comment: Should add the condition that the water chemistries of the two water bodies involved must be compatible.

Response: DES does not believe it is reasonably possible to quantitatively prove that "water chemistries" are "compatible". It was this type of language in the existing rule that this rulemaking seeks to remedy. The requirement for designated uses to be supported in both the source and receiving waters effectively accomplishes this goal.

Comment: The importance of the water conservation plan needs to be clarified. DES needs to work with the water suppliers so everyone understands fully what the conservation plan is supposed to do and the importance of it for helping with these situations.

Response: This rule will not allow a transfer to be approved unless a water conservation plan that meets the requirements specified in Env-Wq 2101 has been approved by the department and is being complied with. DES does not believe it is possible or appropriate for the rule itself to "clarify" the importance of water conservation. DES and its partners undertake extensive outreach to educate the public on the need to conserve water, regardless of whether a formal plan is in place.

Env-Wq 1708.12(c) [to become (e)]:

Comment: Why is this section here?

Response: This section was added to make it clear that a transfer of water to a Class A surface water is lawful if it meets the stated requirements.